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ABSTRACT

This study investigates and analyzes the organizational structures, institutional ties, and operational practices of selected extramurally-supported centers, laboratories, and institutes. The primary goal is to provide one type of data, some experiences, and judgments on the basis of which an assessment might be made of the conditions of the Wisconsin Research and Development Center for Cognitive Learning. The report contains a brief history of the R & D movement in education and describes the purposes of the various education R & D centers and laboratories. Five education R & D centers, three education laboratories, and 12 other R & D centers on the University of Wisconsin campus were surveyed. The survey covered funding and the effects of funding assurance on the operation of the centers, administrative arrangements, academic vs. nonacademic organization and responsibilities, and staffing. Copies of survey letters and questions are included in the appendix. (Author/DN)

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ORGANIZATIONAL STRUCTURES AND OPERATIONAL PRACTICES OF SELECTED EDUCATIONAL R & D CENTERS AND EDUCATIONAL LABORATORIES AND OF SELECTED CENTERS, LABORATORIES, AND INSTITUTES ON ONE UNIVERSITY CAMPUS

L. Joseph Lins

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Wisconsin Research and Development
Center for Cognitive Learning
The University of Wisconsin
Madison, Wisconsin

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STATEMENT OF FOCUS

Individually Guided Education (IGE) is a new comprehensive system of elementary education. The following components of the IGE system are in varying stages of development and implementation: a new organization for instruction and related administrative arrangements; a model of instructional programing for the individual student; and curriculum components in prereading, reading, mathematics, motivation, and environmental education. The development of other curriculum components, of a system for managing instruction by computer, and of instructional strategies is needed to complete the system. Continuing programmatic research is required to provide a sound knowledge base for the components under development and for improved second generation components. Finally, systematic implementation is essential so that the products will function properly in the IGE schools.

The Center plans and carries out the research, development, and implementation components of its IGE program in this sequence: (1) identify the needs and delimit the component problem area; (2) assess the possible constraints--financial resources and availability of staff; (3) formulate general plans and specific procedures for solving the problems; (4) secure and allocate human and material resources to carry out the plans; (5) provide for effective communication among personnel and efficient management of activities and resources; and (6) evaluate the effectiveness of each activity and its contribution to the total program and correct any difficulties through feedback mechanisms and appropriate management techniques.

A self-renewing system of elementary education is projected in each participating elementary school, i.e., one which is less dependent on external sources for direction and is more responsive to the needs of the children attending each particular school. In the IGE schools, Center-developed and other curriculum products compatible with the Center's instructional programing model will lead to higher morale and job satisfaction among educational personnel. Each developmental product makes its unique contribution to IGE as it is implemented in the schools. The various research components add to the knowledge of Center practitioners, developers, and theorists.

PREFACE

The study reported herein notes and analyzes organizational structures, operational situations, and institutional ties of selected extramurally supported centers, laboratories, and institutes. The primary goal is to provide one type of data, experiences, and judgments on the basis of which an assessment might be made of conditions and circumstances of the Wisconsin Research and Development Center for Cognitive Learning.

Through structured interviews, the study draws upon the experiences and judgments of heads of five selected educational R & D Centers including the Wisconsin R & D Center, three selected Educational Laboratories, and 12 other selected University of Wisconsin centers, laboratories, and institutes. Collectively the annual budgets of the centers, laboratories, and institutes included surpass $50 million.

For a statement of the rationale of and procedures for the study, please see pages 1-5 and 16-23 of this report. The responses are as of a particular point in time. Changes since the time of the survey are not reflected in the report. It is noted, for example, that, since the interviews were held, the Omnibus Higher Education Bill has been signed into law (P. L. 92-318). That bill establishes an Education Division (within Health, Education, and Welfare) composed of the Office of Education and a new National Institute of Education (NIE) with the latter to foster educational research. It is not the purpose of this paper to deal with influences of the NIE on the educational R & D Centers and Educational Laboratories.

The participants were assured that their responses would be held in confidence. Therefore, no individuals or units are identified in the

analyses.

The report is a source document. Its purpose is not to make recommendations or to set up norms. The various centers, laboratories, and institutes differ markedly, and rightfully so. They have diverse missions. Therefore, they should not be expected to conform to any one given set of administrative, organizational, operational, or personnel structures or regulations and care should be exercised in making comparisons of one with another.

Care must be exercised, also, in making comparisons from one university to another. Universities have varied organizational patterns. What may be workable in one may not be logical for another. For example, budgeting procedures differ. What one institution includes under a budget heading of indirect costs, or overhead costs, may be quite different from what is included under that heading for another institution; some items which might be included under supplies and expense in one institution might be categorized as capital by another institution; etc.

Although the study was designed primarily to provide one type of background for an assessment of the Wisconsin R & D Center, the analyses presented may be useful to persons responsible for other centers, laboratories, and institutes. It is hoped that the study will be helpful particularly to those who participated in it. Some of the issues raised are worthy of more than passing thought.

No summary of the report has been prepared. No brief generalizations are offered since these might be misleading when divorced from the substantive material on which those generalizations might be based. It is felt that persons interested in a particular aspect of the study should read carefully the entire section or sections dealing with that aspect.

The Table of Contents is broken into fine divisions to provide assistance in locating elements of the study. All persons should read the "DESIGN OF THE STUDY" section, particularly pages 1-5 and 16-23. A set of each of the structured interview questions is included in the Appendix; these should be helpful in interpreting the summarized responses.

To individually acknowledge the contributions of all persons who were involved in the study would be lengthy. I am deeply grateful to the three members of the U. S. Office of Education staff, the seven representatives of four educational R & D Centers in states other than Wisconsin, the four representatives of three Educational Laboratories, and the representatives of the 13 Madison campus centers, laboratories, and institutes who gave generously of their time and energy in participating in the study. These person are listed in the "Study Procedure" section, pages 19-22, of this report.

It was a distinct privilege to have the interviews. They were both productive and pleasurable. The generosity in time sacrificed undoubtedly demonstrates that there was both interest in and concern for the problems and questions raised in the interviews. All units requested to participate in the study did so. All persons asked to be interviewed consented to those interviews. The patience, the sharing of knowledge, and the expressions of judgments of these persons, each having very important assignments and constraints of time, can not be repaid but I do again wish to thank them.

Without the encouragement of Dr. Herbert J. Klausmeier and Dr. William R. Bush, Director and Deputy Director respectively of the Wisconsin R & D Center, to do the study and their assistance in many ways during the course of the study, this report would not have been possible. I am truly

grateful.

The members of the Internal Advisory Committee and the External Advisory Council are given on page 16 of this report. The assistance of those persons, and in some cases their representatives in addition, was invaluable--thanks.

The diligence and care of Mrs. Arlene Knudsen, who typed the interview schedules and the original manuscript, and the assistance given by Mrs. Jan Sluga and Mrs. Sandra Schulz are appreciatively acknowledged.

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Wisconsin R & D Center for Cognitive Learning

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DESIGN OF THE STUDY

In September of 1971, the writer was invited by the Executive Committee of the Wisconsin Research and Development Center for Cognitive Learning to bring together various data, opinions, and judgments on the basis of which an assessment could be made of the institutional ties and internal organizational structure of that Center and their effects on the Center. Periodically, programs and components of programs of that Center have been evaluated and adjustments have been made, the administrative structure has been reviewed and altered, and staffing patterns have been changed to provide what appeared to be the best climate to most effectively influence educational change.

The history of that Center's activities and past evaluations, including those by the U. S. Office of Education appointed Site Visit Committees and the National Evaluation Committee, indicate that the Wisconsin R & D Center for Cognitive Learning has been successful in discharging its mission. The Executive Committee of the R & D Center, however, felt that the Center might quite appropriately review its structure and operation at this time since:

1. The Center had been in operation for seven years and could be considered to have a degree of maturity.

2. The U. S. Office of Education was requesting a comprehensive basic Program Plan for the future; it appeared, therefore, that a greater than normal review might be helpful.

3. It was anticipated that a National Institute of Education (NIE)

might be established by the Congress and, if so, that that Institute likely would be responsible for the educational R & D Centers and the Educational Laboratories; it seemed important therefore to bring together some data, not previously available, which might be useful in future planning. The NIE since has been authorized under Public Law 92-318.

4. In the fall of 1972, the Wisconsin R & D Center will occupy space in the new Educational Sciences Building. The contract, which provides over $4,100,000 of Federal funds as a part of the construction costs of the building, stipulates that the facilities so funded "... will be used only for research and research related purposes as defined in the (enabling) Act " and that "This assurance is for a period of 40 years which is the normally accepted useful life for depreciation purposes." It was felt that the organizational structure of the Center should be reviewed in terms of the anticipated move to the new building.

5. At the request of Congressman John Brademas, a general evaluation of U. S. Office of Education sponsored educational R & D Centers and Educational Laboratories was made by Dr. Francis S. Chase and reported to the Select Subcommittee on Education, U. S. House of Representatives.[1] That evaluation resulted in some conclusions and raised some questions which could affect the Wisconsin R & D Center.

6. In 1972, programs of the educational R & D Centers were to be reviewed by U. S. Office of Education appointed panels.

7. The merger of the Boards of Regents of the University of Wisconsin system and the State University system and the implementation study

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[1] Francis S. Chase. "Educational Research & Development in the Sixties: The Mixed Report Card" (A background paper submitted to the Select Subcommittee on Education, U. S. House of Representatives, April 1971), pp. ii + 70 + Appendices.

for the merger of the two systems may have implications for organization and funding of research and development efforts.

There have been national evaluations with respect to the work of educational R & D Centers and the relationships of R & D Center and Educational Laboratory activities. One attempt to evaluate the R & D Centers resulted in a total issue of the Journal of Research and Development in Education being devoted to "USOE-Funded Research and Development Centers: An Assessment."[2] Each of nine R & D Centers was asked to present an account of its work in terms of goals, methods used in pursuing those goals, estimated successes, and estimated projected success. General assessment summaries dealing with the value of the Research and Development Centers' activities for the overall improvement of education were then presented in three separate articles: S. M. Brownell, "R & D Centers and the Schools: A Reaction to Progress Reports"; Benjamin S. Bloom, "R & D Centers: Promise and Fulfillment"; and Ward S. Mason and Norman J. Boyan, "Perspectives on Educational R & D Centers."

In the above publication, the Centers were urged to omit their organizational aspects--one of the areas to which the study reported herein addresses itself. The second major area for investigation in this study is that of institutional ties and operational practices. These would seem important in terms, particularly, of the relationships of the Center to its university--its sponsoring agency.

Rationale for the Study

The major reason for the study is to supply information on the basis

[2]"USOE-Funded Research and Development Centers: An Assessment," Journal of Research and Development in Education, Vol. 1, No. 4, Summer 1968, pp. 202.

of which there might be provided the best climate for continuing educational research and development at the University of Wisconsin, for conducting those activities, and for implementing developmental products in school settings. The study provides information about selected federally funded educational R & D Centers and Educational Laboratories in various states and about selected University of Wisconsin organized research and development centers, laboratories, and institutes. The pattern of experiences of those centers, laboratories, and institutes may be helpful to University of Wisconsin and R & D officials in charting the future organization and operation of the Wisconsin R & D Center. It is hoped that the study may be useful also to the participating centers, laboratories, and institutes and to their sponsoring agencies.

Center administrative and staff successes can be expected to be evaluated by funding agencies in terms of program planning, whether facilities and equipment are utilized to their fullest extent, and productivity as measured by quality and quantity of research output, development activities, and dissemination and implementation methods and results. In order to do research and to have that research effective in producing educational change, the researcher needs to have his activities financed and to have a proper setting for his work. He must justify his work to those who are responsible for educational policy decisions. Collectively the community of researchers, whether those researchers are attached to an educational R & D Center or to a research group organized otherwise, must demonstrate an effective operational organization and be productive scholars. Optimum productiveness will hardly occur, however, unless an appropriate setting is provided through proper funding, housing, working conditions, administrative and advisory structures, and supporting staff.

It is to these areas that the study is addressed.

Development of Educational R & D Centers and Laboratories

It may be helpful to some readers of the body of this report to have a summary statement of the development of the federally funded educational R & D Centers and Educational Laboratories. The following gives only a skeleton--a bare minimum--of information about the early history of the educational R & D Centers and Educational Laboratories and about the missions of the Centers and Laboratories in existence at the time of the survey.

In the early 1950's, a serious evaluation was made of the need for educational change. It was clear that the needs of education were greater than could, or would, be funded by local and state educational agencies alone. It was clear also that research in education needed both financial and human resources greater than those of the individual localities or states and that Federal support was essential if significant changes in the educational processes were to come about.

The initial legislation specifically authorizing the U. S. Office of Education to give support for educational surveys, research, and demonstrations was approved by the Eighty-third Congress in 1954. This was the Cooperative Research Act, P. L. 83-531, which authorized the U. S. Office of Education to enter into jointly financed cooperative arrangements with colleges and universities and state education agencies for the conduct of research, surveys, and demonstrations in the field of education.

The first funding of Cooperative Research was in 1956 when $1,020,190 of salary and expense money was used to fund 72 projects in 30 colleges and universities and six state education departments. Two-thirds of this

money was spent for research on the mentally retarded.

In the early years, a good deal of both applied research and basic research was stimulated and funded. But there was some question that the research projects related as well as they might have to each other. It appeared that more attention, in awarding research monies, was paid to the technical excellence of the research proposals than to the substantive areas of research or the type of research. This is not to say that there was not some attention given to a few substantive areas of research need, but insufficient thought apparently was given to long-range educational needs, and planning for those needs, through continuing and integrated research efforts.

The research experience of those early years also tended to demonstrate that there were insufficient well-educated and trained persons either qualified or willing to devote substantial blocks of their time to educational research and development.

Early funding, although limited, seemed to be adequate. However, as interest increased, the dollar amounts available no longer appeared sufficient to fund even all of the very excellent proposals.

The early Federal support of educational research did appear successful in stimulating interest in educational research and development. The educational community became deeply involved, but representatives of the U. S. Office of Education could see some problems emerging.

Educational Research and Development Centers

Probably no single factor was more important in the decision to establish educational Research and Development Centers than the realization that Federal support for project-type research resulted in less than desirable coordination of major areas of educational research. It also

seemed logical that Centers might increase the involvement of educational agencies and institutions not previously eligible for grants and that Centers, through their efforts, might prepare additional persons for research and development. In May of 1963, guidelines for the establishment of the Research and Development Centers Program were approved.

The first systematic attempt to apply research and development strategies to education occurred in 1964 with the establishment of four research and development (R & D) centers as the R & D Center Program--part of the Cooperative Research Program of the U. S. Office of Education. These Centers were: Center for the Advanced Study of Educational Administration, University of Oregon (funded April 1964); Learning Research and Development Center, University of Pittsburgh (funded April 1964); Research and Development Center for Learning and Re-Education (now the Wisconsin Research and Development Center for Cognitive Learning), University of Wisconsin (funded September 1964); and Center for Research and Development on Individual Differences, Harvard University (funded September 1964). At the time of establishing these Centers, the U. S. Office of Education Cooperative Research Program included six major programs: (1) basic and applied research, (2) demonstration, (3) curriculum improvement, (4) small contract, (5) research and development centers, and (6) developmental activities. The Cooperative Research Program document giving instructions for R & D contract applications specified that:

> "Research and development centers are designed to concentrate human and financial resources on a particular problem area in education over an extended period of time in an attempt to make a significant contribution toward an understanding of, and an improvement of educational practice in, the problem area. More specifically, the personnel of the center will:
>
> "1. Conduct basic and applied research studies,

both of the laboratory and field type.

"2. Conduct developmental activities designed to translate systematically research findings into educational materials or procedures, and field test the developed products.

"3. Demonstrate and disseminate information about the new programs or procedures which emerge from the research and development efforts. These activities may include demonstrations in a natural, or operational setting, the preparation of films, tapes, displays, publications, and lectures, and the participation in symposia and conferences.

"4. Provide nationwide leadership in the chosen problem area."[3]

Calendar years should not be confused with fiscal years. The Federal fiscal year runs from July to June and is named for the year that the June of that year falls in. For example, the fiscal year July 1963 through June 1964 is FY '64. Therefore, the Oregon and Pittsburgh Centers were started in FY '64 whereas the Wisconsin and Harvard Centers were started in FY '65. The R & D Center Program had a FY '64 appropriation of $1,000,000; this was increased to $2,168,000 for FY '65 and $6,579,000 for FY '66.

Also established in FY '65 (May or June 1965) were the Research and Development Center for Educational Stimulation at the University of Georgia, the Research and Development Center for Teacher Education at the University of Texas, the Stanford Center for Research and Development in Teaching at Stanford University, the Center for Research and Development in Higher Education at the University of California at Berkeley, and the Center for Urban Education in New York City. In May of 1966 (FY '66), the Center for the Study of Evaluation at the University of California, Los Angeles, was established and in September of 1966 (FY '67), the Center for the Study of Social Organization of Schools at the Johns Hopkins University was started.

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[3] U. S. Office of Education. Application Instructions for Research Contracts, OE-12017, p. 27.

The above Centers were established under the R & D Center Program. In addition, some of the institutions later transferred to the R & D Center Program originally were established by other program units and had somewhat different purposes; this was true of the two vocational education centers (at the Ohio State University and at North Carolina State University), the National Education Program on Early Childhood Education, and the National Center for Higher Education Management Systems.

According to the July 1971 booklet of the National Center for Educational Research and Development, "Educational R & D Programs Conducted by Laboratories and Centers,"[4] there were eight Research and Development Centers, two Vocational and Technical Research and Development Centers, and a National Center for Higher Education Management Systems. In addition, The National Program on Early Childhood Education (NPECE) consisted of the National Coordination Center at CEMREL (Central Midwestern Regional Educational Laboratory) which had the responsibility of overseeing the work of seven university-based components located at Peabody College for Teachers, the University of Chicago, the University of Arizona, the University of Kansas, Syracuse University, Cornell University, and the University of Oregon. The Oregon Center was funded by the Bureau of Education for the Handicapped for only one year and is no longer a part of the NPECE.

The mission of the National Program on Early Childhood Education is "to develop programs which will provide the appropriate skills and sustaining motivations to enable children from birth to 8 years to master their environment and effectively participate in a rapidly changing society."[5]

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[4]National Center for Educational Research and Development, U. S. Office of Education, "Educational R & D Programs Conducted by Laboratories and Centers," OE-12056, July 1971, pp. 1-6 and 14-18.

[5]Ibid., p. 14.

The missions of the other Centers, at the time of publication of the booklet of the National Center for Educational Research and Development (NCERD),[6] were as follows:[7]

Research and Development Centers

1. WISCONSIN RESEARCH AND DEVELOPMENT CENTER FOR COGNITIVE LEARNING, University of Wisconsin, Madison, Wisconsin.

> "To improve educational practice through programmatic R & D by generating new knowledge about cognitive learning and instructional processes and by developing materials and procedures based on a self-renewing system of Individually Guided Education (IGE) in the Multiunit Elementary School."

2. CENTER FOR RESEARCH AND DEVELOPMENT IN HIGHER EDUCATION, University of California, Berkeley, California.

> "To improve the quality, effectiveness, and accessibility of higher education in the United States."

3. RESEARCH AND DEVELOPMENT CENTER FOR TEACHER EDUCATION, University of Texas, Austin, Texas.

> "To promote the 'personalization' of teacher education and, through teacher training, the 'personalization' of elementary and secondary school instruction by focusing on the maximum individualization of learning experience for teacher trainees (and ultimately, their pupils) in accordance with their concerns and capabilities."

4. CENTER FOR SOCIAL ORGANIZATION OF SCHOOLS, Johns Hopkins University, Baltimore, Maryland.

> "To conduct research on how students are affected by environmental aspects such as school organization, rules, and racial composition."

5. CENTER FOR THE ADVANCED STUDY OF EDUCATIONAL ADMINISTRATION, University of Oregon, Eugene, Oregon.

> "To develop programs to improve procedures for educa-

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[6] Ibid., pp. 1-6 and 16-18.

[7] It is noted that since the publication of the NCERD booklet, the Omnibus Higher Education Bill has been signed into law (P. L. 92-318). That Bill establishes an Education Division (within Health, Education, and Welfare) composed of the Office of Education and a new National Institute of Education (NIE) with the latter to foster educational research.

tional decisionmaking related to the organizational and administrative implications of instructional change in public elementary and secondary schools."

6. CENTER FOR THE STUDY OF EVALUATION, University of California--Los Angeles, Los Angeles, California.

"To develop systems for evaluating different levels of education which can be adopted and implemented by educational agencies."

7. STANFORD CENTER FOR RESEARCH AND DEVELOPMENT IN TEACHING, Stanford University, Palo Alto, California.

"To improve the effectiveness of teaching in American schools."

8. PITTSBURGH LEARNING R & D CENTER, University of Pittsburgh, Pittsburgh, Pennsylvania.

"To study the processes of learning and to design, develop, and test new techniques of instruction."

Vocational and Technical Research and Development Centers

1. THE CENTER FOR RESEARCH AND LEADERSHIP DEVELOPMENT IN VOCATIONAL AND TECHNICAL EDUCATION, Ohio State University, Columbus, Ohio.

"To strengthen State educational systems and to provide effective occupational education programs which meet both individual needs and manpower requirements, through: research and development to fill voids in existing knowledge and create methods for applying knowledge; development of state leadership in vocational teacher education, curriculum development strategies, and vocational choice and adjustment programs; stimulation and strengthening of other institutions' capacity to solve significant educational problems; and operation of a national information storage, retrieval, and dissemination system for vocational and technical education."

2. CENTER FOR RESEARCH, DEVELOPMENT, AND TRAINING IN OCCUPATIONAL EDUCATION, North Carolina State University, Raleigh, North Carolina.

"To improve the quality and extent of occupational education and to implement a model for education toward occupational proficiency through the development and implementation of: comprehensive post-secondary occupational education programs; comprehensive occupational education programs in traditional elementary and junior high schools; comprehensive occupational education programs for rural schools;

and models and systems for the evaluation of occupational education."

Management Systems Center

WESTERN INTERSTATE COMMISSION FOR HIGHER EDUCATION NATIONAL CENTER FOR HIGHER EDUCATION MANAGEMENT SYSTEMS, Boulder, Colorado.

> "To improve (1) institutional management, (2) statewide coordination, and (3) national decisionmaking in higher education by: (a) creating a communications base throughout higher education by developing standard definitions of data elements; standard procedures for aggregating, reporting, and analyzing those data elements; and agreement on qualitative aspects involved in data comparison and (b) developing techniques using standard data elements to improve program planning and resource allocation."

Three other educational Research and Development Centers initially funded under the R & D Centers Program were: (1) Center for Research and Development on Educational Differences, Harvard University (transferred from the R & D Center Program to Project support in July 1968); (2) Center for Urban Education, New York (established in FY '65 as an R & D Center and transferred to the National Program for Regional Educational Laboratories in FY '66); and (3) Center for Educational Stimulation, University of Georgia (established in FY '65 and discontinued as of July 1970).

Educational Laboratories

In 1965, a serious study of federally supported educational research was made by a Presidential Task Force, representatives of the U. S. Office of Education, and others. In that year, the Cooperative Research Act, administered by the U. S. Office of Education, was amended by Title IV of the Elementary and Secondary Education Act (ESEA). Bright and Gideonse[8]

[8] R. Louis Bright and Hendrik D. Gideonse. "Research and Development Strategies: The Current Scene" in Herbert J. Klausmeier and George T. O'Hearn, Research and Development Toward the Improvement of Education (Madison, Wisconsin: Dembar Educational Research Services, Inc., 1968), p. 141.

point out that:

> "The amendments broadened the existing authority--to support research, surveys, and demonstrations in education--to include dissemination. The range of eligible institutions was expanded to virtually all kinds of public and private organizations whether profit or non-profit. Authority was included to develop programs designed to train educational research and related personnel, and to upgrade training programs. The Office (of Education) was authorized to award grants as well as contracts, and the Commissioner was given authority to award funds for the construction and equipping of facilities for research and related purposes.
>
> "These amendments vastly extended the range of activities possible under the research program, and made it feasible for the research program to meet directly some of the needs identified in the reviews of the program at that time...."

Resulting from Title IV of the ESEA, a network of 19 non-profit regional Educational Laboratories was established in 1966 to bridge the gap between research and practice; another Laboratory was established in 1967. They were to involve state education agencies and local school districts in their work and were to provide the means through which those state education agencies and local school districts were apprised of educational innovations. The 20 Educational Laboratories were: Appalachia Educational Laboratory: Charleston, West Virginia; Center for Urban Education: New York, New York (funded as a Center from July 1965 to March 1966); Central Atlantic Regional Educational Laboratory: Washington, D. C. (initially funded in 1967); Central Midwestern Regional Educational Laboratory: St. Ann, Missouri; Cooperative Educational Research Laboratory: Northfield, Illinois; Eastern Regional Institute for Education: Syracuse, New York; Educational Development Center: Newton, Massachusetts; Far West Laboratory for Educational Research and Development: Berkeley, California; Michigan-Ohio Regional Educational Laboratory: Detroit, Michigan; Mid-Continent Regional Educational Laboratory: Kansas City, Missouri; Northwest Regional Educational Laboratory: Portland, Oregon; Regional Educa-

tional Laboratory for the Carolinas and Virginia: Durham, North Carolina; Research for Better Schools: Philadelphia, Pennsylvania; Rocky Mountain Educational Laboratory: Greeley, Colorado; South Central Regional Educational Laboratory: Little Rock, Arkansas; Southeastern Educational Laboratory: Atlanta, Georgia; Southwest Cooperative Educational Laboratory: Albuquerque, New Mexico; Southwest Educational Development Laboratory: Austin, Texas; Southwest Regional Educational Laboratory: Inglewood, California; and Upper Midwest Regional Educational Laboratory: Minneapolis, Minnesota.

The Educational Laboratories were to be geographically distributed so as to serve all areas of the United States. The "Guidelines" for them called for institutions which would be multidisciplinary and multifunctional and which would conduct a range of activities from research, development, and demonstration to dissemination. The "Guidelines" called for a diversity of program responsive to the research and development needs of the regions and the nation and required that programs be launched in cooperation with the full range of educational institutions and resources of their regions.

According to the July 1971 booklet of the National Center for Educational Research and Development, "Educational R & D Programs Conducted by Laboratories and Centers,"[9] there were 11 Educational Laboratories at that time. These laboratories are autonomous (not-for-profit) corporations. The missions of the laboratories were as follows:

1. APPALACHIA EDUCATIONAL LABORATORY (AEL), Charleston, West Virginia.

> "To develop programs to increase the accessibility of quality educational programs for rural and isolated schools."

[9] Op. cit., pp. 7-13.

2. CENTRAL MIDWESTERN REGIONAL EDUCATIONAL LABORATORY (CEMREL), St. Ann, Missouri.

> "To improve the effectiveness of instruction in the schools by development and application of curriculums and instructional systems."

3. CENTER FOR URBAN EDUCATION (CUE), New York, New York.

> "To develop programs to improve the quality and relevance of urban education."

4. FAR WEST LABORATORY FOR EDUCATIONAL RESEARCH AND DEVELOPMENT (FWLERD), Berkeley, California.

> "To apply product development technology to solve diverse educational problems."

5. MID-CONTINENT REGIONAL EDUCATIONAL LABORATORY (McREL), Kansas City, Missouri.

> "To design and test training programs for secondary teachers to provide for inquiry skill developments; and to develop programs to prepare teachers for service in ghetto schools."

6. NORTHWEST REGIONAL EDUCATIONAL LABORATORY (NWREL), Portland, Oregon.

> "To develop and help install effective educational products which build on existing research and technology."

7. NATIONAL LABORATORY IN HIGHER EDUCATION (NLHE), Durham, North Carolina.

> "To create products and processes to improve administration and instruction in higher education and to introduce promising new products and processes into elementary and secondary schools in the laboratory's region."

8. RESEARCH FOR BETTER SCHOOLS (RBS), Philadelphia, Pennsylvania.

> "To construct products which will not only optimize conditions for intellectual growth of the individual student, but also promote his self-reliance, responsibility, and responsiveness to changing social and technological environments."

9. SOUTHWESTERN COOPERATIVE EDUCATIONAL LABORATORY (SWCEL), Albuquerque, New Mexico.

> "To develop programs to improve the communication

skills of culturally diverse children, ages 3-8, particularly Mexican-Americans and Indians."

10. SOUTHWEST REGIONAL LABORATORY (SWRL), Inglewood, California.

"To develop performance-referenced and learner-controlled curriculum systems that are research based; that equip preschool and primary Anglo, Mexican-American, and black children with skills necessary to function in an increasingly complex environment; and that are supported by human resources support systems and computer support systems."

11. SOUTHWEST EDUCATIONAL DEVELOPMENT LABORATORY (SEDL), Austin, Texas.

"To develop learning systems at the preschool and primary levels to meet the specific educational needs of Mexican-American, black, and French-American children."

Study Procedure

In designing the study and defining its limits, two advisory groups were set up: (1) an Internal Advisory Committee and (2) an External Advisory Council. The former was a Committee consisting of some staff members of the Wisconsin R & D Center for Cognitive Learning, namely, Professor Herbert J. Klausmeier, Director of the Center; Dr. William R. Bush, Director of Program Planning and Management and Deputy Director of the Center; Professor Robert G. Petzold, member of the R & D Center Executive Committee; Dr. Elizabeth S. Ghatala, Assistant Scientist; and Professor L. Joseph Lins, Principal Investigator. The latter Council consisted of University of Wisconsin administrators, namely, Professor Irving Shain, Vice Chancellor of the Madison Campus; Reuben H. Lorenz, Vice President of Business Affairs of Central Administration; Dean Donald J. McCarty, School of Education; Dean Stephen C. Kleene, College of Letters and Science; and Dean Robert M. Bock, Graduate School.

The Internal Advisory Committee reviewed and advised on the complete

design of the study including its purposes, the groups to be surveyed, and the questions to be included in the survey. The External Advisory Council was informed of the design of the study but directed its attention primarily to the selection of Madison Campus centers, laboratories, and institutes to be invited to participate in the study, to a review of and suggestions for the data gathering methods, and to the questions to be asked about the Madison Campus centers, laboratories, and institutes.

Three major criteria determined the centers, laboratories, and institutes to be requested to participate in the study.

It is recalled that one of the purposes of the survey was to compare the internal organizational structure and institutional ties of centers, laboratories, and institutes and to analyze the effects of the various organizational structures and institutional ties on the centers, laboratories, and institutes. Thus, a major criterion was that the units selected represent a wide variety of administrative and support patterns and of missions.

A second criterion was that the units selected, in general, would have substantial support. Thus, those selected should have a sizeable budget. The exception was the U. W. School of Education Instructional Research Laboratories which are included in order to have full representation of funded research units of that School since the Wisconsin R & D Center is administratively responsible to the Dean of the School of Education.

Since costs of travel had to be considered, a third criterion was that the units be located such that a maximum number could be visited in a minimum amount of time and at reasonable cost. Since, among the educational R & D Centers and Educational Laboratories, the prime interest would

be in the R & D Centers, it was decided to include five R & D Centers (the Wisconsin R & D Center and four out-of-state) but only three Educational Laboratories.

All of the centers, laboratories, and institutes requested to participate in the study did so. The study reported herein consists of an analysis of the information, opinions, and judgments of various persons responsible for center, laboratory, and institute efforts. The survey method was one of structured interview unless noted otherwise. Included in the survey were: (1) directors of four selected educational R & D Centers in states other than Wisconsin, (2) directors (or presidents) of three selected Educational Laboratories in other states, (3) three selected representatives of the National Center for Educational Research and Development (NCERD), U. S. Office of Education, and (4) directors and/or their representatives of 13 selected Madison Campus centers, laboratories, and institutes including the Wisconsin Research and Development Center for Cognitive Learning. The Directors of the centers, laboratories, and institutes were assured that the analyses would be on a group basis. Therefore the centers, laboratories, and institutes are not identified in the analyses of responses.

Selected Educational R & D Centers and Laboratories

Five educational R & D Centers and three Educational Laboratories, which at the time of the survey were partially funded through the U. S. Office of Education National Center for Educational Research and Development, were selected for inclusion in the study. The Director (or President) of each Center or Laboratory was sent a letter over the signature of Dr. William R. Bush, Director of Program Planning and Management and Deputy Director of the Wisconsin R & D Center, and a letter over the

signature of the Principal Investigator for the study together with a copy of the proposed questions for the interview (See Appendix A). Included with the letters was a summary of the proposal for the study.

The Principal Investigator called the Director (or President) of each Center or Laboratory requesting his cooperation and setting up a time for an interview. During the weeks of May 1 and May 15, 1972, the Principal Investigator visited the respective centers and laboratories and met with the Director (or President) and in some cases additional staff members. Notes were made during the interviews and later transcribed.

The centers and laboratories visited and the persons interviewed are:

1. Educational R & D Centers

a. Center for the Advanced Study of Educational Administration, University of Oregon: Dr. Max G. Abbott, Director.

b. Center for Vocational and Technical Education, Ohio State University: Dr. Robert E. Taylor, Director; Dr. K. E. Gray, Associate Director for Support Services.

c. Learning Research and Development Center, University of Pittsburgh: Dr. Robert Glaser, Co-Director; Dr. John Yeager, Associate Director; Mrs. Evelyn Fisher, Board of Visitors staff.

d. Stanford Center for Research and Development in Teaching, Stanford University: Dr. Robert N. Bush, Director.

e. Wisconsin Research and Development Center for Cognitive Learning, University of Wisconsin: Professor Herbert J. Klausmeier, Director; Dr. William R. Bush, Deputy Director; Mr. Dan Woolpert, Director of Business Operations (combined interview with interview as a Madison Campus center).

2. Educational Laboratories

a. Central Midwestern Regional Educational Laboratory, St. Ann, Missouri: Dr. Wade M. Robinson, President.

b. Far West Laboratory for Educational Research and Development, Berkeley, California: Dr. John K. Hemphill, Director; Dr. Paul Hood, Associate Director.

c. Research for Better Schools, Inc., Philadelphia, Pennsylvania: Dr. Robert Scanlon, Executive Director.

National Center for Educational Research and Development (NCERD)

Just prior to the educational R & D Center and Educational Laboratory visits, the Principal Investigator met with representatives of the NCERD, U. S. Office of Education, in Washington, D. C. As with other interviews, a letter from Dr. Bush and a letter from the Principal Investigator were sent and a telephone call was made to set up the time for the interview. The letters were directed to Dr. Ward S. Mason, Chief of the Developing Institutions Branch.

Interviews were held with Dr. Mason, Dr. Kent Viehoever, and Ms. Ann Kohankie. These interviews primarily were for the purpose of: (1) correcting and adding to data which the Principal Investigator had on the history, missions, and functions of the R & D Centers and Educational Laboratories, (2) securing selected data on funding, (3) securing information on USOE sponsored Site Visit Team reports of the Wisconsin R & D Center, and (4) securing information on staffing patterns of the R & D Centers and Educational Laboratories.

Selected Madison Campus Centers, Laboratories, and Institutes

In selecting the Madison campus centers, laboratories, and institutes to be invited to cooperate in the study, an attempt was made to include a

quite divergent group from the standpoint (1) of proportion of Federal vs. State funding, (2) of college or school representation on the staff, (3) of missions, and (4) of administrative ties with the University.

Through a letter over the signature of Dr. William R. Bush, Director of Program Planning and Management and Deputy Director of the Wisconsin R & D Center, and a letter over the signature of the Principal Investigator for the study, the director of the respective center, laboratory, or institute was informed of the study. Included with the letters was a copy of the proposed questions for an interview (See Appendix B) and a summary of the proposal for the study.

Following the mailing of the letters and enclosed materials, the Principal Investigator called the Director of the unit requesting his cooperation and setting up a time for an interview. After telephone explanations and discussions, the Directors of two of the units responded to the questions on a special "Recording Form" provided for that purpose. In all other cases, the Principal Investigator made notes and recorded statements at the time of the interview. The interviews were held during the months of April, May, and July 1972.

The centers, laboratories, and institutes included and the persons supplying information are:

1. Cancer Research Center--McArdle Laboratory: Professor Harold P. Rusch, Director.

2. Center on Mental Retardation and Human Development: Professor F. Rick Heber, Director; Dr. Harvey Stevens, Program Administrator.

3. Environmental Studies Institute: Professor Reid A. Bryson, Director.

4. Forest Products Laboratory: Dr. Herbert Fleischer, Director;

Dr. Jerome Saeman, Associate Director; Dr. Gordon Logan, Assistant Director for Research Support Services; Dr. W. G. Youngquist, Assistant to the Director.

5. Food Research Institute: Professor Edwin M. Foster, Director.

6. Institute for Enzyme Research: Dr. Albert D. Heindel, Program Administrator.

7. Institute for Research on Poverty: Professor Robert W. Haveman, Director; Dr. John W. Sorenson, Associate Director.

8. Instructional Research Laboratories, School of Education (Schools Division Laboratory, Adult Education Curriculum and Instruction Laboratory, Business Education Laboratory, Center for Environmental Communications and Education Studies, and Television Laboratory): Professor Peter P. Mickelson, Director.

9. Mathematics Research Center: Professor Louis B. Rall, Associate Director.

10. Primate Research Center: Professor Robert W. Goy, Director; Professor James R. Allen, Chief of Experimental Pathology Unit; Associate Professor John W. Davenport, Chief of Psychology Learning Unit.

11. Space Science and Engineering Center: Professor Verner E. Suomi, Director; Mr. Thomas O. Haig, Executive Director; Mr. David R. Cismoski, Administrator of Resources; Miss Mary K. Hansen, Administrator of Services.

12. U. W. Water Resources Center: Professor James V. Villemonte, Director.

13. Wisconsin Research and Development Center for Cognitive Learning: Professor Herbert J. Klausmeier, Director; Dr. William R. Bush, Deputy Director; Mr. Dan Woolpert, Director of Business Operations (combined interview with interview as an educational R & D Center. In the analyses,

this Center is included with the educational R & D Centers).

All of the above centers, laboratories, and institutes are partially funded through Federal funds with the exception of the Instructional Research Laboratories. The Instructional Research Laboratories receive their funding from State funds but may receive additional grants and gifts from foundations and the Federal government for special projects originating as the result of submission of proposals to the proper agencies. The Instructional Research Laboratories had total funding of about $135,000 and are responsible to the Dean of the School of Education.

SURVEY ANALYSES

For purposes of the analyses, Educational R & D Centers are defined as the Wisconsin R & D Center for Cognitive Learning, University of Wisconsin, Madison, and four other selected Educational R & D Centers administratively responsible to a university in a state other than Wisconsin; those Centers are: Center for the Advanced Study of Educational Administration, University of Oregon, Eugene; Center for Vocational and Technical Education, The Ohio State University, Columbus; Learning Research and Development Center, University of Pittsburgh, Pittsburgh, Pennsylvania; and Stanford Center for Research and Development in Teaching, Palo Alto, California. All of these R & D Centers, at the time of the survey, were partially financed through funds from the U. S. Office of Education.

Three Educational Laboratories, which also were partially financed through funds from the U. S. Office of Education and which are located in states other than Wisconsin, are included in the analyses. Those three Educational Laboratories are: Central Midwestern Regional Educational Laboratory, St. Ann, Missouri; Far West Laboratory for Educational Research and Development, Berkeley, California; and Research for Better Schools, Inc., Philadelphia, Pennsylvania.

Twelve Madison Campus Centers, Laboratories, and Institutes (University of Wisconsin), in addition to the Wisconsin R & D Center for Cognitive Learning, are included in the survey. These Centers, Laboratories, and Institutes are: Cancer Research Center--McArdle Laboratory, Center on Mental Retardation and Human Development, Environmental Studies Institute,

Forest Products Laboratory, Food Research Institute, Institute for Enzyme Research, Institute for Research on Poverty, Instructional Research Laboratories (School of Education), Mathematics Research Center, Primate Research Center, Space Science and Engineering Center, and U. W. Water Resources Center.

Hereafter in this report, from the standpoint of brevity for identification purposes, the three major groupings will be referred to as R & D Centers (the Educational R & D Centers), Educational Laboratories (the Educational Laboratories), and Madison Centers (the Madison Campus Centers, Laboratories, and Institutes). To avoid duplication in the analyses, the Wisconsin R & D Center for Cognitive Learning is included among the R & D Centers rather than among the Madison Centers; it will be referred to as the Wisconsin R & D Center.

Funding

R & D Centers

The operating budgets of the five R & D Centers for 1971-72 amounted to about $16 million. Only one had an operating budget of less than $800,000 and only one had an operating budget of over $4 million. The approximate sizes of the operating budgets, rounded to the nearest thousands of dollars, were $732, $1,350, $2,660, $3,600, and $7,500.

The prime source of funding for operations is the Federal government with the proportion of Federal funding ranging from 78 percent to 95 percent; three of the R & D Centers receive less than 86 percent and two receive about 95 percent of their operational support from Federal agencies. Most of the Federal funds are from the U. S. Office of Education; examples of other Federal agencies supplying funds are Transportation and the National Science Foundation. State funding ranges from 5 to 22 percent.

The R & D Centers located in public institutions receive all of their operational support from Federal agencies or the State; the other Centers have some support from other sources.

For all of the R & D Centers surveyed, the Federal overhead funds go to the institution and not to the Center. For some, however, the university contribution to the Center is greater than the amount of Federal overhead collected by the institution.

The space occupied by two of the R & D Centers is furnished by the university either through rent or buildings constructed by the university, and will continue to be. The other three R & D Centers will be located in buildings for which all or part of the capital costs were supplied by Federal funding.

Madison Centers

The annual operating budget of each of the 12 Madison Centers included in the survey, with the exception of the Instructional Research Laboratories, is greater than a million dollars; their total annual operating budget is about $21.5 million of which 89.2 percent is Federal funds, 3.4 percent is State funds to the University, 1.8 percent is from State departments other than the University, 1.2 percent is from foundations, 4.2 percent is from private gifts (individual or corporation), and 0.2 percent is from other sources.

Of the 12 Madison Centers, seven have or will receive Federal funds for the facilities occupied. The Federal percentage of the costs of the facilities occupied of the seven Madison Centers ranges from 36.0 percent to 100.0 percent; the percentages are 36.0, 70.6, 80.0, 83.3, 100.0, 100.0, and 100.0. All other funds for facilities are State funds with the exception of one Madison Center which received 16.7 percent of the building

cost from private sources, and one which received 24.0 percent of the building cost from a U. W. associated foundation.

Effects of Assurance of Funding

The Directors of the R & D Centers and Educational Laboratories and of the Madison Centers were asked the length of time they had reasonable assurance that their respective center (laboratory) would be funded in terms of (1) actual funding and (2) moral commitment of funds. Each also was asked whether he felt the period for which the center (laboratory) had reasonable assurance of funding seriously affected his ability to: (1) secure highly qualified staff, (2) attack complex problems, (3) adequately have results of center (laboratory) efforts published and/or brought to the attention of educational practitioners, (4) secure proper office and research space, (5) work with users of R & D in discovering their needs, and (6) set up adequate administrative and advisory committees.

A third, and companion, question was whether they felt they had more problems than is true of regular university departments (administrative or academic) in: (1) securing staff and (2) retaining staff of four types (professorial or professorial level, other professional, classified [secretarial and clerical], and graduate students).

Actual funding for R & D Centers and Educational Laboratories is on a year-to-year basis and "moral commitment" is three to five years with some variation by program within the Center or Laboratory. Most of the Madison Centers surveyed also have actual funding on a year-to-year basis but a few have grants extending from 3-5 years. Few of the Madison Centers make formal program plans beyond five years; one of these plans on a 5-10 year basis.

According to the center, laboratory, or institute Directors, length

of reasonable assurance of funds, with few exceptions, does not seriously affect the ability of the R & D Centers, Educational Laboratories, or Madison Centers to secure highly qualified staff, attack complex problems, have the results of their efforts published or brought to the attention of practitioners, secure proper office or research space, work with users of R & D in discovering their needs, or set up adequate administrative and advisory committees. One R & D Center, one Educational Laboratory, and one Madison Center evidenced some problems in securing highly qualified staff; the problem did not appear to be a grave one, however, but there was a little concern for recruiting professional (non-professorial) staff because of the desire of some of those persons to have an academic appointment and tenure. Minor concern also was expressed by some Center Directors for recruiting graduate students and professorial staff because of the academic department tie and these persons, for most R & D Centers and Madison Centers, being required to be accepted by an academic department prior to being hired by the Center. One Educational Laboratory Director stated they had some problems in recruiting top program management people because the more mature and experienced people are set in their assignments with perhaps tenure and family roots.

No centers or laboratories feel any grave problems in retaining staff. In fact, a few Directors feel the problems are less serious than for regular university departments because of careful initial selection and generally more favorable salaries.

Two R & D Center Directors and one Educational Laboratory Director saw some problems in attacking complex problems because of the length of assurance of funding. One R & D Center Director and one Educational Laboratory Director feel that the length of assurance of funding affects

the ability to adequately have the results of effort published and/or brought to the attention of educational practitioners and to work with schools in discovering their needs. In general, however, there is an optimism with respect to funding; the centers and laboratories plan under the assumption that there will be continued funding for a considerable amount of time. As one R & D Center Director expressed it, he felt that long-range planning was logical since there was sufficient assurance of funding not to interfere with any important activity of the Center. He feels the R & D Centers will be funded so long as they are productive and respond to Federal government priorities.

A problem which came from the interviews with the Educational Laboratory Directors was a short-range type of funding problem. Without dollar reserves, problems are created, if Federal funds do not come on time, to meet payrolls. If there is borrowing, interest can not be paid from Federal dollars so private sources would have to be found to cover the interest. Since inventories of products can not be carried over, there are some problems in this respect. Flat funding also creates problems since there have to be cutbacks due to increasing costs; also some components have to have an expansion of funding as they grow which means that providing those funds has to result in cutbacks of funds for other components.

Administrative Arrangements

The interview questions relative to administrative arrangements for the center, laboratory, or institute were of three types: (1) the advantages and limitations of the administrative arrangement of the respective center, laboratory, or institute with respect to the particular university or Board of Directors' ties giving the type of support (administrative

and in securing funds) needed and of the best administrative tie for centers, laboratories, and institutes in general, (2) the types of administrative and advisory committees used, the representation on these, and the usefulness of them, and (3) the effect of the amount of autonomy (freedom from university, Federal, and other grant agency restraints) on program determination, development work, dissemination of research and development information, and implementation of products.

Administrative Ties

Of the institutions in which the five R & D Centers are located, one is independent and nonprofit, one is private but has state-related control, and three are under state control. Administratively, two of the R & D Centers report to the Dean of the School of Education, one reports to the Dean of the Graduate School as a part of the Institute for Community Studies, and two report to the Provost and chief academic officer of the respective sponsoring university.

Each of the three Educational Laboratories is responsible to a Board of Directors but the geographic representation varies considerably. The Far West Laboratory is a public agency established through a Joint Powers Agreement. Its Board of Directors has regional representation with no members of the Board being located farther East than Salt Lake City. Signatories as of November 30, 1971, included the Regents of the University of California, the California State Board of Education, the Trustees of the California State Colleges, the Board of Education of the San Francisco United School District, the Regents of the University of Nevada, the Nevada State Board of Education, the Board of Regents of the University of Utah, and the Utah State Board of Education. The Board of Directors of the Central Midwestern Regional Laboratory has representation from

the nation-at-large as well as the region. Research for Better Schools, Inc. has a 21-member Board of Directors representing three states (Pennsylvania, Delaware, and New Jersey).

Administratively, one of the 12 Madison Centers is responsible to the Chancellor of the Madison Campus, five are responsible to the Dean of the Graduate School (two solely to the Dean of the Graduate School, one jointly to a Vice President in Central Administration, one to the Dean of the Graduate School for fiscal matters and to the Dean of the College of Letters and Science for personnel matters, and one to a Committee of the Deans of the Graduate School, School of Education, Medical School, and College of Letters and Science with the Dean of the Graduate School as Chairman), five are responsible to a Dean of a school or college other than the Graduate School (respectively the Medical School, the College of Agricultural and Life Sciences, the School of Education, and two to the College of Letters and Science), and one (Forest Products Laboratory) works through a cooperative arrangement with the University and is responsible to the Chief of Forest Service, U. S. Department of Agriculture. The Wisconsin R & D Center also is responsible to the Dean of the School of Education.

R & D Centers

There are some mixed feelings among the Directors of the educational R & D Centers as to the best administrative tie within the university. In cases where the university staff of the Center does, or the Director feels it should, represent a variety of disciplines, the consensus is that reporting to the Provost or chief campus academic officer has definite advantages for the Director of the R & D Center; this gives him a closer tie with the various college or school deans and greater ease in securing

joint-appointments with the various colleges and schools. Where the Center functions like a college or school in terms of administrative arrangements, there appears to be greater ease in solving financial and personnel policy and procedure problems than if responsible to an academic dean.

There was some concern expressed about the slowness of the decision making process and the slowness of top level administrative communications reaching the Center if the Director of the Center reports to an academic dean since requests must go through numerous channels prior to a final decision being made. Another concern in reporting to an academic dean was that the mission of the Center and the mission of a college or school are quite different--one having a funded research emphasis and the other having a teaching emphasis.

In some centers, the mission is changing with an increasing emphasis on development and a decreasing emphasis on research. Where this is occurring, there seems to be less concern for wide interdisciplinary representation on the staff and a higher proportion of the professorial staff is being drawn from the School of Education. Should this continue, it is possible that over a period of time the tie to the Dean of the School of Education may be the right one. However, the cause and effect relationship may not be clear. It is possible that the cause of the lowering of research emphasis has been one of funds coming almost exclusively from one Federal agency--the U. S. Office of Education; if the university tie were with an office which was more aware of appropriate other public and of non-public sources of funding, the Center might secure a change in funding sources and thereby be able to change its mission orientation somewhat.

Educational Laboratories

The Educational Laboratory Directors do not see a great deal of advantage to the Laboratory if it had closer university ties. They can work with universities now but are not directly responsible to them. They feel they need autonomy and can not subordinate their decisions in administration, in planning, or in securing funds to those of an established educational institution.

One Director, however, felt the Laboratory was at a disadvantage in that it could not do basic and applied research without bootlegging it since the USOE conceives their function as development, dissemination, and implementation. He feels it would be helpful to have greater non-administrative ties with universities and R & D Centers for basic and applied research support for he feels the need exists for laboratories to have the results of that type of research more rapidly.

Madison Centers

The administrative organization of universities varies one from the other. A situation which might be quite workable in one university may not fit the pattern of another university. Therefore, the Principal Investigator sought the advice and input of Directors of 12 centers, laboratories, and institutes on one campus of a university--the Madison campus of the University of Wisconsin. It is this campus on which the Wisconsin R & D Center for Cognitive Learning is located. Attention again is called to the inclusion of the Wisconsin R & D Center in the R & D Center analyses rather than in the analyses with respect to Madison Centers.

As indicated earlier, the Madison campus centers, laboratories, and institutes vary in their areas of endeavor and the University offices to which they are responsible. None of the Directors expressed grave concern

about the next higher administrative level but some did feel that some changes might be helpful. There seems to be agreement that no one type of administrative tie would fit all units and that the administrative tie (whether to an academic department, the Dean of an undergraduate school or college, the Dean of the Graduate School, the Chancellor's office, or Central Administration of the entire university system) should be dependent upon the type of unit and its mission.

There seems to be agreement also that an administrative tie which works well at the present may not be good in the future given a changed set of circumstances such as a Dean who is less effective, a change in Center responsibilities, a change in the general university organizational structure, a change in university personnel policies, or a change in State, Federal, and foundation funding patterns and research emphases. There appears to be no support for a university administrative structure in which all centers, laboratories, and institutes report directly to one office.

The general feeling of the Directors of the Madison Centers is that, if the center is not multidisciplinary, the appropriate next line of administrative reporting is to the Dean of an academic school or college. There seems to be a feeling also that, if the research unit is dependent upon State funding, the higher the administrative unit to which the center reports the better. If the function of the center is research, there does not seem to be support for a departmental type of administrative governance because of a fear of the academic department interjecting too many instruction oriented policies and values.

If a center has interdisciplinary concerns, it well might report to the Dean of the Graduate School or the Chancellor. If the center is inter-

disciplinary in nature, there seem to be definite advantages in involvement of the deans of the various schools and colleges. This can be done through a committee of deans with the dean of the major school or college involved (or the Dean of the Graduate School) as chairman. This is suggested because of three problems, which were pointed out, that can arise if the various deans are not kept well informed: (1) if funding should involve the contribution of funds from various colleges and/or schools, those deans might not provide the essential funds if they are not involved and well informed, (2) unless the various deans are involved early in staffing considerations, there may be problems in securing a balanced interdisciplinary staff particularly since, at the University of Wisconsin, new professorial staff of a Center must be attached to an academic department, and (3) the joint support of deans of various colleges and schools will carry more weight with persons responsible for funds (whether State or Federal) than perhaps would the support of only one dean.

A word of caution is appropriate with respect to the above arrangement. The various deans have many responsibilities and commitments. It is doubtful that they can become deeply involved with all centers, laboratories, and institutes with which the faculty of their colleges and schools are associated in one way or another.

The Center Directors see some problems in a dual type of administrative arrangement such as being responsible to one dean for one function and to another dean for another function, say funding vs. personnel.

There is some feeling also that the Chancellor's office level, as the next highest level of reporting above the center, is too high. There is fear that the campus Chancellor might not be able to be sufficiently involved in program and operational decisions. However, an advantage

pointed out was that he is close to the "purse strings."

One Director suggested that it might be appropriate for some centers, laboratories, and institutes to report to an outside, but affiliated, organization such as the Wisconsin Alumni Research Foundation. In any such judgment, one should keep in mind some of the advantages of university ties as evidenced by remarks of some of the Center directors: accessibility of staff, close association between research and teaching, close relationships with a variety of philanthropic organizations, and grant agency awareness of close screening before proposals and disbursements are forwarded--a confidence in current university administrative procedures, and an awareness of the "academic excellence of the University of Wisconsin" as an institution.

Administrative and Advisory Committees

R & D Centers and Educational Laboratories

For the R & D Centers, there apparently have been some conflicts between the advice given by a national advisory committee of the Center and the wishes of the U. S. Office of Education particularly with respect to research vs. development efforts. One center has discontinued its National Advisory Committee and two others expressed concern about the amount of time it takes to prepare for the national advisory committee meetings. Some centers are giving serious thought to not having one national advisory committee but to having a type of small consulting committee of experts for each major program of the center; the latter would become more deeply involved in advising on program design and operational problems than the former has been. The Educational Laboratories visited, in general, already have set up technical advisory panels which advise on planning and content of and procedures for the laboratory programs. The

advice of those panels also is pointed toward giving direction to, assessing the progress of, and evaluating the respective program components. Consultants are paid an honorarium plus expenses.

The second type of committee which many R & D Centers and Educational Laboratories have and which they find very useful is an internal planning committee consisting generally of the head (or heads) of the Center or Laboratory, the heads of the major programs or components, and representatives of the next higher administrative level (Board of Directors or Dean and/or heads of schools or colleges from which the staff comes). One of the advantages of such a committee is informational in that these persons then are expected to communicate with Center or Laboratory related persons--persons within the Center or Laboratory as well as representatives responsible for funding and major decisions which could affect the Center or Laboratory.

There is no uniformity in types of committees or in types of representation on committees of the various centers or laboratories, but neither are the missions the same. Some internal committees have been set up for the purpose of attempting solutions of problems peculiar to the Center or Laboratory. A few Directors felt they either had, or now have, too many committees and that the committee structure should be carefully reviewed periodically.

There is concern about the amount of effort which is expended in justifying programs and in supplying information about programs to the funding agencies. It is recognized that the evaluation teams and site visit teams of the funding agencies must be served well since the funding agency reviews and the site visit team reports have a direct and very important bearing on continued programming and funding. However, the

amount of time which has to be taken from research, development, dissemination, and implementation efforts in order to adequately prepare the Annual Budget Justification, the Basic Program Plan, and related reports such as the PARaDE (Products/Accomplishments from Research and Development in Education) is distressing.

Madison Centers

Among the Madison Centers, there is a trend away from national advisory committees and a trend toward more emphasis on advisory groups for programs or components of programs. This may be a tendency as the center, laboratory, or institute matures. Several Directors felt that their respective earlier national advisory committees concerned themselves too greatly in trying to make decisions rather than in giving advice. The advisory groups for programs or components still tend to be national in nature but the composition is different; they, for the most part, are persons knowledgeable in a specialized field and who advise the center, laboratory, or institute staff with respect to the special program or component of the center, laboratory, or institute.

A second committee, which is quite general for Madison Centers, is an Executive Committee or Administrative Committee. This committee usually consists of the tenure-track (professorial) staff, some of the other professional staff if responsible for a program or component, the Center director(s), and a representative (or representatives) of the next higher level of administrative decision making above that of the Center. This is a policy making committee.

An alternate to the committee above is a set of two committees. One is an Executive Committee concerned with broad general policies for the Center and which has lesser representation of the tenure-track staff.

The second is an internal Administrative Committee made up of the Center administrators and persons responsible for the various major programs and components of programs.

Probably due to variations in desirable organizational patterns and Center responsibilities, a variety of other types of committees are found among the Madison Centers. Some of these are:

1. Research Committee--composed of academic staff who comment on the proposed research and research under way and the implications of that research, and act on funding requests.

2. Publications Committee--composed of academic and administrative staff members who make final decisions on Center sponsored publications but not on the details for publication.

3. Fellowship Committee--selects graduate students.

4. Liaison Committee--works with extra-university agencies with which the Center has direct working relationships; it may have membership from those agencies.

5. Site Visit Team of funding agency. The responsibilities and composition vary a good deal with the agencies providing the funds. Some teams meet twice a year, some once a year, and some less frequently. Some visit the campus regularly and some occasionally make recommendations on the basis of Center prepared reports.

Administrative Autonomy

R & D Centers and Educational Laboratories

Generally the R & D Center Directors are quite satisfied with the amount of autonomy their Centers enjoy. They apparently have a reasonable freedom from both university and Federal constraints, but not uniformly so.

Program determination is quite free of university intervention but

some Directors feel their universities are not geared well to development, dissemination, and implementation. Funding comes through the university; one R & D Center Director, particularly, finds that he has some problems in justification of what is being done and of clearance of detail. There are some problems also in the requirement of following university and college or school personnel policies; some emphasis of the problems will be presented in the "Staffing" section of this report.

Funding has been primarily under the U. S. Office of Education. In R & D Centers where there are limited funding agencies and consequently the inability to commingle funds, there appear to be problems in providing a balanced program of research, development, dissemination, and implementation. One Center claims it does not have the funds to do all four well and consequently the research component is suffering. Another Center is "bootlegging dissemination and implementation."

The major emphasis is on "sure fire" products rather than on higher risk products since funds are difficult to get for the latter, yet there is some feeling that the higher risk areas might have significant pay off and that there should be less constraints so it would be possible to carry out at least formative evaluations in untapped and untested novel areas. As a Center becomes more mature, there apparently is less freedom for trying new things.

The recent program concept support policy of the USOE was mentioned also as an area of concern. Under that policy, some fear was expressed that it might be difficult to maintain an adequate and necessary administrative staff. The program concept support policy is new and the effects are difficult to determine for either the R & D Centers or the Educational Laboratories. A general comment of one Director indicated a special type

of apprehension for he stated that, if a primary funding agency should fund by program and if that agency were to work primarily with Principal Investigators for respective programs, the program concept support policy could put the Director in the position of being primarily a monitor and could create a situation of less coordination and less interrelationship of programs within the unit.

Some other areas of lack of autonomy, which can have a significant effect on a Center or Laboratory, were sufficiently stressed to be worthy of mention. Some of these are:

1. The funding agency contracting for a purchase but not divulging the ultimate mission to the contractor.

2. Governmental constraints such as (a) a requirement of approval of other than very small subcontracts by the funding agency, (b) a requirement that all materials produced in more than a small number of copies be printed by the Government Printing Office or only after approval by that office, (c) a requirement that there can be no carryover of inventory from one year to the next and that no revolving fund accounts can be set up, and (d) an inflexibility in the budget such that some money from a grant for a particular component, and other small amounts of money, can not be transferred to another component without specific approval of the shift by the funding agency.

Madison Centers

The reader is reminded that the 12 Madison Centers surveyed receive their respective primary sources of funding from a variety of sources but, with the exception of two of the Madison Centers, over two-thirds of the operating funds comes from some Federal agency. One of the two receives over half of its operating funds from unrestricted gifts of corporations

or associations; the other receives all or nearly all of its funds from the State.

The constraints reported by Madison Center Directors with respect to Federal grants vary somewhat with the Federal agency. The problems reported are not uniform.

In programming, reports were all the way from considerable freedom in delineation of programs and components of programs, with the original grant application setting forth the mission and thereafter the Center having considerable latitude in the general grant areas, to a close annual scrutiny of the programs and components. In personnel appointments, the amount of Federal intervention varies from little attention to the individual appointment to the Federal agency having veto power over all new senior appointments.

Several Madison Center Directors expressed a high degree of concern about the amount of justification needed. An example is that expressed by one Director who stated, "We find the contracting procedures being followed by the Federal agencies are unnecessarily cumbersome and that it causes us to spend an excessive amount of time in audits, writing proposals, and writing redundant reports. This situation has become worse in the last two years. For example, ... reporting requirements are an unnecessary burden since all new technical work is adequately covered in normal technical reports and in papers to professional journals."

Constraints with respect to staffing will be presented in the "Staffing" section of this report.

Generally, the Madison Center Directors do not feel they have inappropriate restraints. The area of greatest general concern seems to be that of operational funding. With a level Federal funding pattern (no increase

in dollars), effective Federal support becomes less because of increased general costs and salaries; in addition some Centers report a lessening of University provision of some operating costs. The number of positions in some Centers is decreasing under a stable amount of funding. In some Centers, the number of programs has not been decreased but some programs have had to be scaled down.

Academic vs. Nonacademic Organization and Responsibilities

All of the five R & D Centers surveyed are organized as nonacademic departments of the respective university of which they are a part, and do not offer courses as a Center. Only one of the 12 Madison Centers surveyed functions like an academic department and offers courses; the others are nonacademic departments and do not offer courses as a Center. The one Madison Center which offers courses and functions as an academic department is interdisciplinary in nature but its major function is research.

The Director of each of the R & D Centers and Madison Centers was asked whether or not he felt it would be desirable for the Center as a Center to offer courses and the reasons for that feeling. The Directors of three of the five R & D Centers responded with a qualified yes if those courses were minor in terms of total Center responsibility; one responded with a definite no and one stated that the Center should not under the limitations of present money sources but that the Center would be glad to staff a course each term if the university would provide funds to pay the staff members for the service.

The general, but not exclusive, situation for the R & D Centers and the Madison Centers is that professorial staff have split appointments with the Center and the academic department with which affiliated. Most

professorial staff members do teach courses as a part of their budgeted responsibilities in the academic department. For purposes of the analysis, this is not considered as the Center offering a course.

The three Directors of R & D Centers who responded with a qualified yes to the question of the Center as a Center offering courses expressed grave fear that the offering of such courses would detract from the primary mission of the Center, namely research and development. One R & D Center Director indicated that he would like to see his Center remain as a non-teaching unit but feels credit should be offered for practicum or seminar research or research methodology for work in the Center. A second R & D Center Director sees need for a greater tie between research and practice and thus feels that a good deal of related course work should fall under the aegis of the Center; neither his colleagues in the Center nor the university administration, according to him, "have bought the idea." The third R & D Center Director feels that the Center probably should start offering short-term courses that academic departments do not wish to offer and also possibly should offer other courses with potentially large enrollments but which the instructional departments do not offer; however, he would be opposed to the Center being engaged in instruction on anything but a small scale.

Only three of the 12 Directors of Madison Centers feel that their respective Centers should, or might, offer course work--two already do; of these two, one Center has academic department functions and the second offers only one specialized course and does not anticipate offering additional courses. The third Center would offer courses for training purposes but not for degree work.

It is clear that there is a quite general and strong feeling that

both the R & D Centers and Madison Centers consider their missions to be research and that as Centers they should not take on teaching responsibilities. Professorial staff would continue to teach in their respective academic departments but non-professorial professional staff of the Center should not assume teaching functions. It seems certain, then, that R & D Center non-professorial professional staff members who desire to teach will have little opportunity for this should they remain as staff members of an extramurally financed center.

The R & D Center and Madison Center Directors also were asked whether they felt, in general, extramurally funded university centers should be instructional or non-instructional departments. The Directors of the R & D Centers are in agreement that R & D Centers should not be instructional departments but two of them feel strongly that the university should be flexible enough to give faculty rank even though the professional staff member is not engaged in teaching.

The Madison Center Directors, almost without exception, agree with the R & D Center Directors that extramurally funded centers, laboratories, and institutes should not be instructional departments but some would add a qualification. The qualification is that the decision should be dependent upon the mission of the center. If the mission is research, then research efforts should not be diluted through performing other functions. As one Director stated, "I feel that each case would have to be evaluated individually to determine whether the population of the university gains from the addition of a specialized instructional unit."

In broad terms, many of the R & D Center and Madison Center Directors feel a good deal of teaching is done in Centers now but it is teaching of a non-formal nature such as the working relationships between a professor

and a graduate student in the Center or the relationship between top professionals and their staffs in the Center.

Staffing

This section is addressed to four major areas: (1) composition of staff, (2) use of specialized staff, (3) preparation of R & D professionals for the future, and (4) strengths and limitations of academic vs. non-academic staff arrangements.

Composition of Staff

Even though a few of the centers, laboratories, and institutes could not readily give a full-time equivalent breakdown of their staff, the tables to follow are in terms of full-time equivalents; the centers, laboratories, and institutes for which full-time equivalent data are not available are omitted from the tables--Tables 1 and 2 of the section on "Composition of Staff." In the "Study Procedure" section of the "DESIGN OF THE STUDY" of this report, the R & D Centers, Educational Laboratories, and Madison Centers included are listed by name. In the interest of preserving anonymity in the analyses, percentages rather than numbers are used in the tables and the order of listing of the centers, laboratories, and institutes bears no relationship to the listing by name and a number is assigned to each. For the purposes of this report, emphasis is put on likes and differences, not on the situation of a particular unit.

R & D Centers and Educational Laboratories

None of the Educational Laboratories surveyed has less than 80 full-time-equivalent (FTE) professional staff members; this excludes secretarial and clerical staff. Only one has a staff member with professorial rank in a university; that person is employed half time by the Educational Laboratory and half time by the university with which he is affiliated.

The tendency in staff titles for Educational Laboratories is that those titles follow functional responsibilities. Examples are President, Executive Director, Laboratory Director, Director (Management Systems, Business, Publications, Plant Planning, Data Processing, Program, Finance, Staff Development, General Dissemination, Administrative Operations, Administrative Services), Coordinator (Mathematics, Pilot Study, Curriculum, Editorial, Graphics, Social Studies), Specialist (Diffusion, Teacher Training, Design, Graphics, Photographic, Evaluation, Reports), Purchasing Agent, Contracts Administrator, Treasurer, Budget and Accounts Supervisor, Program Associate, Research Intern, Editor, Public Information Officer, Mathematician in Residence, Technical Writer, Teacher, Production Manager, Field Consultant, Curriculum Developer, Graphics Technician, Statistical Programmer, etc. There is a tendency also for grades within titles such as Director, Associate Director, and Assistant Director; Graphics Specialist I, II, III; Senior Program Associate I, II; Senior Program Assistant I, II; Research Intern I, II, III; etc.

Two of the five R & D Centers are permitted to hire some staff full time on a professorial basis and to have those staff members then have academic appointments in the academic departments of the university. It is possible for professorial staff initially to be hired full time in the Center, through Center salary funds, and then later for an academic department, if it so wishes, to pick up part of the person's salary and to give him academic responsibilities. The two Centers have full-time staff in the Center on a continuing basis with professorial appointments through the respective academic departments.

In three of the R & D Centers, the normal pattern is for all professorial staff to be part time in the Center and part time in an academic

department. Those persons are screened and hired by the academic department and then are given released time to work in the Center with part of their salary being paid by the Center. The arrangement does not preclude the Center from hiring a person with a Ph.D. full time and then later a department picking the person up part time and giving him professorial rank if a mutually agreed upon arrangement can be worked out.

In Table 1 are shown the percentages of FTE professional positions as reported by the five R & D Centers surveyed; the number of FTE professional positions ranges from 24.1 to 155.0. Two of the Centers have full-time staff with professorial appointments in academic departments, as noted above; neither of those two Centers has less than 18 such staff members.

Two of the R & D Centers have one or more staff members with professorial rank but not through an academic department, i.e., an academic department has no responsibility for them. In one of the Centers, and in the university in which that Center is located, it is very unusual for a person to have professorial rank without attachment to an academic department.

Since the R & D Centers are responsible to a university and since the personnel policies vary from one university to another, it can be expected that there will be variations in appointment situations and titles. In one Center, for example, persons with professorial rank in an academic department and employed part time by the Center are called Principal Investigators and non-academic rank persons with a doctoral degree are called Scientists while in another Center the senior staff are called R & D Associates. In the former Center, graduate students are called Project Assistants and Research Assistants; in the latter Center they are

TABLE 1

COMPOSITION OF R & D CENTER PROFESSIONAL STAFFS (FTE)

Type of Staff	Center				
	1	2	3	4	5
	%	%	%	%	%
Full time in Center with rank in university academic department	--	--	--	25.8	12.1
Part time in Center with rank in university academic department	7.7	28.2	44.0	--	8.5
Full time and part time with rank but not in an academic department	1.3	--	--	--	3.0
Full time and part time with no rank (includes graduate assistants, specialists, etc.)	91.0	71.8	56.0	74.2	76.4
TOTAL	100.0	100.0	100.0	100.0	100.0

called Research and Development Assistants. While one Center uses the Specialist title, another uses functional titles and titles as various types of technicians.

Madison Centers

As is true of other sections, the Wisconsin R & D Center is included with R & D Centers, not with Madison Centers.

Current University of Wisconsin regulations are not designed to allow centers, laboratories, and institutes to hire new staff with professorial rank without those persons having the rank in an academic department. Thus the normal procedure is for the Division and/or academic department to have the responsibility for screening, appointment, and promotion of professorial staff and for recommendations to the Dean; a Division is made up of a number of associated departments.

Of the 12 Madison Centers included in the survey, seven have one or more staff members who are full time in the Center and who have professorial rank in an academic department; four of these Centers are included in Table 2. Three Centers, included in Table 2, have one or more persons with professorial rank but not having rank in an academic department. The situation of full-time professorial staff in a Center can occur under circumstances such as (1) a person with professorial rank in a University of Wisconsin academic department joining the staff of a Center full time, (2) a person who never has been attached to a University of Wisconsin academic department being granted University professorial rank on the basis of research production; this would be very unusual for new staff members of the University at the present time, or (3) a person who has been attached to an academic department giving up his academic rank in that department and being granted University professorial rank; this also would be a very unusual situation.

Only eight of the 12 Madison Centers surveyed are included in Table 2. Data were readily available on total staff for the four Centers omitted but not on FTE staff. Of the Centers omitted, one has no professorial staff by virtue of all of the staff members being on Federal civil service. None of the four Madison Centers omitted from Table 2 has less than 65 staff members (full time and part time).

Examples of titles, other than the academic professorial rank titles, used by Madison Centers surveyed are: Director, Deputy Director, Assistant Director, Principal Investigator, Assistant Research Professor (not in an academic department), Fellow, Postdoctoral Fellow, Institute Fellow, Honorary Fellow, Lecturer, Program Administrator, Program Coordinator, Project Associate, Project Coordinator, Project Supervisor, Project

TABLE 2

COMPOSITION OF MADISON CENTER PROFESSIONAL STAFFS (FTE)

Type of Staff	Center							
	1	2	3	4	5	6	7	8
	%	%	%	%	%	%	%	%
Full time in Center with rank in university academic department	5.4	--	--	--	9.8	1.9	18.4	--
Part time in Center with rank in university academic department	3.7	6.3	4.9	1.5	0.4	30.8	6.1	--
Full time and part time with rank but not in an academic department	3.6	--	--	--	--	1.9	--	9.1
Full time and part time with no rank (includes graduate assistants, specialists, etc.)	55.2	83.3	95.1	98.5	89.8	59.6	16.3	90.9
Other professional[a]	32.1	10.4	--	--	--	5.8	59.2	--
TOTAL	100.0[b]	100.0[c]	100.0[c]	100.0[c]	100.0[b]	100.0[b]	100.0[c]	100.0[c]

[a]Such as Postdoctoral Fellows/Interns, U. W. Fellowships for graduate students, and visiting staff with academic rank in some other university.

[b]Over 50 FTE professional staff members.

[c]Less than 50 FTE professional staff members; only one has less than 30.

Specialist, Project Assistant, Research Associate, Research Assistant, Associate Scientist, Assistant Scientist, Specialist, and Teaching Assistant.

Use of Specialized Staff

The investigator included a question in the survey of centers, laboratories, and institutes to discover whether persons outside of the professional area of the center, laboratory, or institute were used either as regular members of the staff or as consultants. Is there an attempt, for example, to involve persons from disciplines other than professional education in the work of the R & D Centers and Educational Laboratories?

The R & D Centers do have staff members from a variety of academic areas other than professional education. Represented on the professional staffs of the five R & D Centers are persons from English, Computer Sciences, Communication Arts, Psychology, Child Development, Media Technology, Information Sciences, Sociology, Business, Statistics, Mathematics, Physics, Engineering, Economics, Systems Engineering, and Operations Research.

The Educational Laboratories also have a wide range of professional personnel with preparation in departments other than professional education. Some examples of disciplines represented are Industrial Psychology, Social Psychology, Experimental Psychology, Speech, English, Linguistics, Journalism, Communications Sciences, Political Science, Sociology, Social Work, Religion, Cybernetics, Anthropology, Art, Economics, Statistics, Psychiatry, Law, and Business.

Many of the Madison Centers are interdisciplinary and draw staff from a variety of disciplines. It is the impression of the investigator that little work of the R & D Centers, Educational Laboratories, or Madison

Centers is done by persons not on the regular staff of those centers, laboratories, and institutes except for visiting staff from other institutions--Fellows and Visiting Scientists. This is not to say that some projects are not farmed out; some Madison Centers support a broad range of programs outside of the Center and some Madison Centers use service agencies such as the Wisconsin Survey Research Laboratory and computer services.

One area of service which quite a number of the Madison Center Directors indicated was very useful to them was computer service. Few would desire that computers be attached to the Center. Most Madison Centers requiring computer work prefer to use the computer services of the University and to pay for the service, and do so; some do have programmers on their staff, however, even though no computers are attached to the Center.

Preparation of R & D Professionals for Future

All of the R & D Centers and Educational Laboratories surveyed employ part-time graduate students. The Directors feel that one of the purposes of such employment is to prepare those persons for R & D work in the future; not all of those persons, of course, will seek or be employed in R & D positions. At the doctoral level, particularly, care must be exercised in the selection of the graduate students for past experience has shown that some graduate students can get caught in a bind between their own dissertation interests and the research for which they are employed. A good working relationship seems to be one of the graduate student being attracted by, and working on, the Center research program of his major professor.

Generally, the graduate students employed by the Educational Labora-

tories are persons employed for a short period of time on a special project, or regular staff members who choose to pursue further graduate work, or persons who have a special set of skills for which the Laboratory has need.

The use of graduate students seems to be quite satisfactory and useful to the R & D Centers and Educational Laboratories. One R & D Center Director feels that the use of graduate students is one of their most effective means of dissemination of the work of the Center since these persons not only speak with other students and with faculty about that work while enrolled but they also carry knowledge of the work with them when they assume a post-Center responsibility. Some become very effective liaison persons between the R & D Center and the schools both while attached to the Center and later.

There is a feeling among R & D Center Directors that junior and senior scholars, working together on a common problem, provide a better rounded research since the junior scholars have more recently been in the operating schools. Graduate students also can provide a variety of disciplinary experiences to the R & D Center to supplement those of the regular staff; one Center reported having graduate students from about 14 different departments representing a wide range of colleges and schools. That same Center reported that they make special efforts to attract well qualified graduate students at the beginning of their graduate work and to keep them in the Center for two to three years.

All of the Madison Centers also employ graduate students, and the Directors feel their work in the Center provides those students with valuable experience for their future endeavors. Research Assistants, of course, must be working in areas which contribute toward their degrees if they are

to comply with regulations with respect to non-taxable income.

The normal procedure for Madison Centers is that the graduate student is responsible to his academic department and the Graduate School for his degree work. The general feeling seems to be that the employment of graduate students is to the mutual benefit of the student and the Center for the student gains experience and progresses toward his degree while at the same time he does productive work for the Center. Some Madison Centers report that most graduate students are very productive and put in long hours while other students have difficulty in coordinating their interests with those of the Center.

One of the areas of preparation which was particularly emphasized by some Madison Center Directors was learning experience for future endeavors--the fact that the Center work ties the classroom and work experiences together. Thus the graduate student becomes expert in a particular field. Some Madison Centers retain some of the graduate students as permanent staff after they finish their degree work.

A second area investigated of types of preparation of professionals for the future can be categorized as service functions, i.e., preparation or reeducation through training grants, postdoctoral internships, and short courses, institutes, and conferences.

Three of the five R & D Centers have some type of training grant. One has a few pre-doctoral fellowships in project effort or product development in which the persons do not have a regular staff responsibility; one has training grants for curriculum development and multidisciplinary training; and a third has a program for persons outside of the Center. The amount of money available for training grants is small.

The postdoctoral internship program of R & D Centers also is a rather

confined program. One R & D Center has 10 postdoctoral interns and generally about two persons on sabbatical leave who are given space in the Center; a second Center provides a home (a desk and space) but no salary; and the third plans to begin a postdoctoral program. The other two R & D Centers have no postdoctoral internships of any kind.

All of the R & D Centers have some type of short course, institute, or conference program. The program of one R & D Center is for Center staff only; a staff development program has been begun recently. One R & D Center's program consists of conferences only; one consists of laboratory training for educational development, regular seminars with students, and one-week training workshops in the fall; and a fourth has a short internship program in cooperation with the graduate research training program in educational administration. A fifth R & D Center has held about 150 conferences and seminars in the past with a total of 6,000-7,000 persons having been involved; this includes dissemination and implementation efforts.

One of the Educational Laboratories has a grant of about $200,000 per year for materials development; that Laboratory assumes a major Federal effort for training educational developers.

All of the Madison Centers, with the exception of one, report some means of preparing professionals. Six of the 12 have some type of postdoctoral internship or fellowship program. Two of these have postdoctoral fellowship/traineeships under grant funds; two operate under a system of persons coming in for advice and consultation; and two provide space but no remuneration.

Six of the Madison Centers have training grants. One has $380,000 for postdoctoral and graduate fellowships including the postdoctoral

fellowships of the preceding paragraph. One has a grant which is intended as a service to 17 states but through which national needs also can be served. A third has about $50,000 set up as a cooperative aid agreement.

Seven of the Madison Centers have short courses, institutes, or conferences. One has two conferences a year--an advanced seminar directed toward the use of the work of the Center and a symposium (State-of-the-Art). One has colloquia in which the work is with community agencies. One has seminars in addition to institutes and conferences. One Madison Center is planning international symposia for the future and one now has international attendance at its conferences. One of the Madison Centers held 28 symposia, advisory committee meetings, and industrial coordination meetings last year.

Strengths and Limitations of Academic vs. Nonacademic Staff Arrangements

It is recalled that the R & D Centers and Madison Centers employ both full-time and part-time professional staff and that some Centers have full-time professional staff with professorial appointments in academic departments of the respective university while others do not. It is recalled also that some universities are more inclined toward tenure-track appointments for research (non-teaching) staff with the earned doctorate than are others.

In surveying the Directors of the various centers, laboratories, and institutes, an attempt was made to discover their feelings with respect to advantages and limitations of academic vs. nonacademic staff arrangements and of the advantages and limitations of employing full-time vs. part-time heads of projects. Earlier in this report, it was pointed out that the consensus of the R & D Center and Madison Center Directors is that Centers generally should not be organized as academic departments.

R & D Centers and Educational Laboratories

The R & D Centers with full-time professorial staff with academic department appointments are very pleased with the arrangement. In these situations, most of the earned doctorate people have a faculty appointment even though they are not teaching. They feel the departmental relationships are good in that it gives the Center staff person a feeling of belonging and a greater opportunity to work with the departments in providing a well-rounded program. The prime responsibility and loyalty is to the Center even though the department and the Center may jointly make salary and promotional recommendations. One of the disadvantages is the responsibility of the university to continue the employment of tenured faculty if the Center funds no longer are available. This, however, is not felt to be a grave problem. The feeling is that the R & D Centers are strong and that even if funding were to decrease the decrease would be gradual so that much of the pressure could be resolved through not filling vacated positions.

Some institutions, however, do not make a practice of giving rank to non-teaching professionals. They have no way of providing a tenure-track appointment for persons employed in a R & D Center only. For them, the Center professorial staff is limited to persons who are employed by an academic department and have released time to work in the Center through part-time employment and funding by the Center. The Directors of such Centers see a disadvantage in part-time employment of such persons because of split loyalties especially where the prime loyalty is to the academic department. However, there is a feeling that divorcing these people from academic endeavors also would be bad. One Director stated his preference as being an 80-85 percent employment in the Center and a

15-20 percent employment in the academic department. It is felt that persons can not serve two masters well--the Center and the academic department.

If complete responsibility for initial hiring, salaries, and promotions is in the hands of the academic department, generally the Center expects to have some problems because of the loyalty situation. This, however, is somewhat balanced by the opportunities afforded staff to do research and to have supporting services available which the department may not be able to provide.

Some of the advantages stressed of professorial staff being employed part time by the R & D Center and by an academic department are: (1) these people can identify good graduate students who can work in the Center and do productive work while learning and who can work with their respective major professors, located in the Center, on graduate and Center work, (2) the results of the Center research can easily be brought to the classroom and thus to prospective and current practitioners, (3) training materials can be run through students in classes, (4) a tie is provided between the Center and academic departments, and (5) the Center does not have to assume the responsibility for continued employment.

There is a recognized disadvantage to full-time R & D Center professional staff who do not have tenure-track appointments in that they do not have the same degree of assurance of employment as do professorial staff. On the other hand, it was pointed out that their employment, initial salary, and salary increments are not tied to regulations of an academic department. They may, for example, be hired at a starting salary higher than a beginning assistant professor; they may be hired without an earned doctorate; and they are not affected by university departmental

budget cuts. There is an advantage to them and the Center also in that they can give their undivided professional attention to research and development; this is important especially under a situation of time constraints in developing products, in conducting school-based research, and in implementing products.

The Educational Laboratory Directors are strongly in favor of full-time people with no university ties. They see grave problems in division of loyalty between a university and a laboratory. A disadvantage of non-university ties, however, was emphasized; it is the difficulty in trying to attract very excellent people from universities.

One Laboratory uses part-time consultants very effectively. These are Program Associates hired from 10-30 days to help with teacher training programs, films, etc.; travel plus per diem is paid. These people are highly recognized in their field and are attracted from foreign countries as well as from various parts of the United States.

Madison Centers

When one relates the question of academic vs. nonacademic and full-time vs. part-time appointments to a particular campus at which regulations are quite uniform, one still finds some strong disagreements among Directors of centers, laboratories, and institutes (hereafter in this section called Centers). Part of the disagreement can be attributed to different missions. In one Center, for example, the Director insists that the researchers be full time since the field moves too rapidly to operate otherwise; they do not grant leaves-of-absence either. A Director of another Center claims he will have no more split appointments with academic departments. In a third Center, the Director states that the permanent staff should be full time and should be, as they are, attached to

an academic department.

For another large Center, the Director feels that the program heads definitely should be part time because only as such can there be a full rounding and involvement in a triad of interrelated activities--teaching, research, and clinical work; all three are very important to the successful pursuit of the area of work in which the Center is involved. Another illustration of the support given to the concept of part-time employment is the following statement of a Center Director:

> "We find that we must continually work to avoid building an in-house staff of scientists who might conduct research to satisfy their own objectives without primary consideration for the teaching mission of the University--which we feel must be paramount. We try to maximize the role of teaching faculty members in research programs rather than to promote Center staff generated programs. We also try to place graduate students in the position of program managers whenever possible in preference to using staff members. The learning opportunities which we can present to graduate students in this role are of great importance in developing responsible scientists."

The diversity of Center missions also gives rise to some problems peculiar to particular Centers. Some Center Directors feel strongly that salary and promotional considerations with respect to tenure-track persons should be a joint responsibility of the Center and the academic department instead of the department solely assuming those responsibilities.

There was fear expressed that Centers with missions quite different from those of academic departments might be "destroyed" because of university staff regulations. The particular point in question is that in earlier years top people in the Center were given the opportunity for professorial rank in an academic department if they so wished but could have professorial rank without being attached to an academic department. This regulation was pointed out as useful in some cases where the person did not want

academic responsibilities and where a number of universities were attempting to attract him. It was pointed out that the current regulations of accept ce by an academic department, in order for a person to secure a tenure-track appointment, presents very serious problems for recruitment.

A rather interesting point made by one Center Director was that it would be surprising to note the change in loyalties to the Center if the part-time professorial staff member were housed in the Center and the Center were at quite some distance from the academic department. According to him, the effort then would be for the staff member to get to the academic department rather than vice versa. This situation, of course, could raise another whole set of problems which would have to be considered seriously in Center-departmental relationships.

Internal Communication

Another area of investigation was that of internal communication within the center, laboratory, or institute. Recognizing that in large centers, laboratories, or institutes many programs and components of programs may be in process concurrently, the investigator asked a question about methods of, and success of methods of, keeping the staff informed so there might be the best unified and integrated efforts within the entire unit.

R & D Centers and Educational Laboratories

Most of the Directors of the R & D Centers and the Educational Laboratories do sense communication problems within their organizations. The seriousness of the communication gap appears to be related to factors such as being housed in a number of buildings or floors of the same building, organizational structure, part-time vs. full-time appointments, relative status of staff members, diversity of programs, opportunities for social affairs across activity lines, overt efforts to provide and search out

information, and pressures of work assignments.

One Educational Laboratory Director felt his most effective means of communication were: (1) his effort and that of his Director of Administration to individually try to see each staff member at least every two weeks to find problems and try to solve them and (2) twice a month to have a meeting with his Cabinet (his Program Directors and the Directors of the program support areas) and to meet twice a month privately with each of his directors.

Another Educational Laboratory Director stated that he has a monthly meeting of his Directors to bring each other up to date and to discuss national, regional, and local questions related to the work; has meetings across program staffs; once a month meets with the non-professional people (secretaries and clerks) to explore a particular area in depth (he feels his secretaries are good ambassadors); and has a Planning Task Force cutting across all programs and all levels of staff. The Planning Task Force is charged with: (1) long-range programming and plans for organization, (2) organizational form, and (3) how to integrate the present programs and to plan new proposals. In addition, an in-house newsletter is prepared and distributed.

A method of communication found to be quite effective by a R & D Center Director is a "retreat" for staff members during which time they present papers.

One Educational Laboratory Director, with staff located in four different buildings, rotates his office to those four buildings during the week and has a newsy type newsletter prepared and distributed. The newsletter deals with programs, not personnel; as an example, headings of one are: What is it designed for? What will it do for you? What does the...

Catalog contain? What are some examples of programs described? How was it developed? When will it be available for use?

All R & D Centers and Educational Laboratories have meetings of the Program Directors with their respective staffs but only about half have regular meetings of the Program Directors of various programs and program components or of the entire professional staff. The preparation of the Annual Budget Justification and of the Basic Program Plan is the major reason for some program directors to come together in some Centers. Not all Centers and Laboratories have program or component prospectuses filed in a central accessible location. Few distribute copies of all center or laboratory publications to the professional staff. With respect to this latter, there was a feeling that the professional staff could not or would not find the time to read the material. Some distribute a bibliography and give the staff the opportunity to request the publications in which they are interested.

In some R & D Centers it apparently is hard to get the professional staff together for meetings. One Director apparently feels that large staff meetings are useful for informational purposes only since he states that with meetings of more than seven people communication quickly breaks down and exchange of ideas becomes very difficult.

Madison Centers

The diversity of missions and of locations of Madison Centers are reflected in the felt need for communication. Some of the serious communication problems seem to be tied to the physical setting for the Center space or the location of Center staff in various locations around the campus. In some Centers, little need for general communication within the Center was evidenced because of the independency of the work of the

various programs.

In an attempt to solve some communication problems, some Madison Centers have grouped projects into fewer program areas than formerly and team research has developed. One Center has developed "A Guide for Project Leaders."

Another Center uses a formally structured management system in which the Program Manager (a Center staff member or graduate student) reports monthly to a "Program Review Board" made up of the Principal Investigator, the Center Executive Director, and administrators for fiscal and personnel areas; other appropriate people are invited. The Program Manager reports on progress, dollar and people statuses, and problems and makes requests for assistance if needed; the direction of the project is determined at these meetings. There also are broadly attended technical or design reviews at critical development points.

One Center has a seminar once a week for the entire department. Other means of communication used by some Madison Centers are: staff brochures, a staff handbook, newsletters, closed circuit TV, journal articles, center publications, meetings of program directors with their staffs, a resource materials center or library, office memoranda to the staff, and small and large group meetings.

Distribution of Effort

This section of the report is addressed to three general questions about the distribution of work of centers, laboratories, and institutes and about the working relationships between R & D Centers and Educational Laboratories in development, dissemination, and implementation. The first question is one of the proportion of the center, laboratory, or institute efforts devoted to research, development, dissemination and implementa-

tion of products, and administration and other activities. The second question is one of the means through which, and by what agencies, the products of educational research efforts are developed for application in the schools. The third question is the means by which the educational products are disseminated to and implemented in the schools.

Mission of Center, Laboratory, or Institute

The reported proportion of effort devoted to research, development, dissemination and implementation, and administration and other activities of the R & D Centers is presented in Table 3. The order of presentation of the R & D Centers, or the Madison Centers, in the tables which follow bears no relationship to the order listed in the "Study Procedure" section of the "DESIGN OF THE STUDY" of this report.

It was quite evident from the interviews that the categorization of efforts varies from one R & D Center to another. One Center, for example, might include some administrative efforts under research, or under development, or under dissemination and implementation while another would have those same types of efforts included under administration; one Center might include some of the dissemination and implementation efforts under some other effort category while a second Center would include a higher proportion of those efforts under dissemination and implementation, or perhaps even have a special unit of the Center set up and budgeted for that purpose; etc. Thus the data of Table 3 should be interpreted broadly.

Even assuming that there might be some differences in the interpretation of the question and in the reporting of the proportion of the total Center responsibilities reported under each of the activity categories, there appear to be differences among the R & D Centers in emphasis

TABLE 3

DISTRIBUTION OF EFFORTS OF R & D CENTERS

Activity	Center				
	1	2	3	4	5
	%	%	%	%	%
Research	12.3	75.0*	35.0	14.2	25.0
Development	42.1		40.0	68.9	45.0
Dissemination**	24.6	7.0	10.0	6.4	10.0
Administration and Other	21.0	18.0	15.0	10.5	20.0
TOTAL	100.0	100.0	100.0	100.0	100.0

*Combined research and development efforts.

**Includes implementation.

on functions. Reported dissemination and implementation efforts, for example, range from 6.4 percent to 24.6 percent of the total efforts of the various Centers. Research efforts range from 12.3 percent to 35.0 percent, or possibly even more if the research and development efforts of Center #2 could be divided.

There are differences in how the R & D Center Directors feel the operational dollars should be spent. This perhaps is as it should be; the programs and components of the various Centers differ. It can be expected then that the most effective means of carrying through the responsibilities of the various Centers also will differ. There are differences also in the availability of quality agencies to develop, disseminate, and implement the products of research of the various Centers.

The differences in proportionate distribution of efforts of the Madison Centers are even greater than for the R & D Centers. Whereas the R & D Centers devote their energies to some type of educational effort, the

Madison Centers represent a wide range of disciplinary and interdisciplinary fields and of funding agencies. The proportion of reported efforts devoted to research varies from 30.0 percent to 100.0 percent (Table 4).

TABLE 4

DISTRIBUTION OF EFFORTS OF MADISON CENTERS

Center	Research	Development	Dissemination	Administration and Other
	%	%	%	%
1	100	--	--	--
2	85	--	5	10
3	30	50	11	9
4	75	--	25	--
5	90	--	--	10
6	85	--	5	10
7	90	--	--	10
8*				
9*				
10	30	25	25	20
11	100	--	--	--
12*				

*Distribution not available.

These data should be interpreted only in a relative and broad sense in keeping with the spirit of the survey. Some Madison Center Directors could not easily separate dissemination and implementation from research and were then not asked to do so. The preparation of a manuscript for a

journal, for example, may be interpreted as dissemination by one Director but it may be reported as research by another Director. As another example, three Madison Centers reported no administrative effort; that effort apparently is included under some other category.

Development, Dissemination, and Implementation of R & D Center Products

One of the purposes of the amendment to the Cooperative Research Act, Title IV of the Elementary and Secondary Act of 1965, was to provide for better dissemination of information to the educational research community and to practitioners in the field and for better implementation of the research and development products. An effort was made to discover the methods of having products developed, information disseminated, and products implemented and the strengths and limitations of those methods as viewed by the Directors of the R & D Centers and Educational Laboratories.

The investigator did not receive the impression that, in the past, there generally has been close cooperative efforts between the various R & D Centers and the various Educational Laboratories. A particular R & D Center and a particular Educational Laboratory may have had a close tie but this seems the exception rather than the rule.

It appears that in the past the various Centers and various Laboratories were not highly knowledgeable of what was being done at other Centers and Laboratories and did not, in their relationships with users, to any great degree call attention to the products of any Center or Laboratory other than their own. This situation seems to be changing; more cooperative efforts and means of information exchange are being developed. As an example, three Educational Laboratories and a R & D Center have developed a formal relationship which involves sharing information on programs and setting up training sessions on the programs.

It means that all four will have information on all programs of the four and can share that information with their clientele when working with them.

There is a good beginning of workshops and conferences and of R & D Centers and Educational Laboratories now coming together to package materials so there can be a unified program for, say, the elementary school. This has been dificult to get started, according to one Director, because of lack of funds to support cooperative efforts. It was stated that, "There are no 'brownie' points from USOE for cooperation between the laboratories and the centers, but this should be the backbone of the programs; the USOE tends to create a competitive attitude."

One Center and one Laboratory have particularly close working relationships; the Center provides the theoretical base and the Laboratory does the developmental, dissemination, and implementation work. Another Center and Laboratory exchange prototypic materials.

Some R & D Centers are working with foundations and commercial distributors and publishers with some apparent degree of success; others have had little activity with commercial firms.

Some R & D Centers do most of the development, dissemination, implementation, and evaluation work with respect to their products themselves usually through some type of evaluation and/or development and/or implementation unit within the Center. It was pointed out that this has an advantage in that the Center staff members see how their developed programs function in the schools but that there is a disadvantage because of the amount of funds and staff time which have to be devoted to the effort.

There were disadvantages expressed also in having independent agencies develop and implement the R & D Center products. Chief among these disadvantages are (1) the inadequacy of the agency especially with respect

to innovative ideas and (2) the profit motivation of the agency. There is some support for the Center being deeply involved since the researcher knows his work. However, the feeling was expressed by one Director that, after the research is done, the Program Director should leave the development and implementation to the full-time R & D Center staff.

APPENDIX

LETTERS AND STRUCTURED INTERVIEW QUESTIONS

A

Educational R & D Centers and Educational Laboratories

WISCONSIN RESEARCH AND DEVELOPMENT CENTER FOR COGNITIVE LEARNING

THE UNIVERSITY OF WISCONSIN
1404 REGENT STREET
MADISON, WISCONSIN 53706
PHONE 262-4901 / AREA 608

April 11, 1972

Dr. _____
Director, _____
(address)

Dear Dr. _____

In preparation for our Center moving into a new building, Educational Sciences, next fall, the Executive Committee of our Center felt we should have an assessment made of our internal organizational structure and institutional ties and their effects on the Center and the Center's effects on others in the University. We invited Professor L. Joseph Lins to assess our current situation. Professor Lins for many years was Coordinator of institutional research for the University of Wisconsin system. For the past four years, he was Director of Research for the Wisconsin Coordinating Council for Higher Education.

The assessment involves many facets of Center operation. We hope, in our planning for the future, we might have the benefit of experiences of other Centers and Laboratories. Thus Professor Lins is including not only our Center and staff in the survey but also is including a wide range of Centers and Laboratories and persons involved in their operation. The purpose of the project is not to evaluate those Centers and Laboratories but to evaluate us. Thus, no individuals or operations, other than our own, will be identified in any of the analyses.

We hope you will cooperate with Professor Lins in this study since we know your experiences will be helpful. We trust the results of the research will be useful to you also in your planning; therefore, the report will be made available to you.

Sincerely yours,

/s/ William R. Bush
Director of Program
Planning and Management;
Deputy Director

WRB:jls

WISCONSIN RESEARCH AND DEVELOPMENT CENTER FOR COGNITIVE LEARNING

THE UNIVERSITY OF WISCONSIN
1404 REGENT STREET
MADISON, WISCONSIN 53706
PHONE XXXXXXX AREA 608
262-5866

April 11, 1972

Dr. _____
Director, _____
(address)

Dear Dr. _____:

As Dr. William R. Bush has indicated in his letter to you, I have been asked to make a case study of the Wisconsin R & D Center for Cognitive Learning. The study was requested by the Executive Committee of the Center and is being done with the approval of the Internal Committee and the External Advisory Council for the project. (Please see page 6 of the enclosed brief summary of the project, "The Wisconsin Research and Development Center for Cognitive Learning: A Case Study of Its Role.")

The document, referred to above, also gives the groups which I expect to survey and the background for the study. The survey of the R & D Center staff is underway. I am now seeking the assistance of administrators of selected Federally funded educational Laboratories and R & D Centers in other states (these units appear under 1 and 2 on page 4 of the document); of selected staff of the U. S. Office of Education; of administrators of selected Madison campus centers, laboratories, and institutes; of Chairmen of departments from which the Wisconsin R & D Center "Principal Investigators" come; and of the Wisconsin R & D Center Executive Committee. Structured interviews are planned.

We believe the results of the study will be useful to you and your unit as well as to the Wisconsin R & D Center. Therefore, copies of the final report will be made available. I do not intend to identify any of the units, except the Wisconsin R & D Center, in the analyses unless specific approval is given by the Director of that unit to do so. In the report, however, I will give credit to the cooperating units unless you ask that this not be done.

I hope you will cooperate in this study. I am enclosing three documents: (1) the brief summary of the project, "The Wisconsin Research and Development Center for Cognitive Learning: A Case Study of Its Role," (2) a copy of the questions for the interview, and (3) a recording form.

Dr. _____
April 11, 1972
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Within a week or two, I will call to seek your cooperation and to set up a time for an interview with you. The first two documents of the preceding paragraph give the background for what I am attempting to do in the assessment study. The "Recording Form" has the same questions as the document of (2) but has space for responses.

If you consent to be included in the research, which I hope you will, you may want to, or have some members of your staff, respond to some of the questions at a time other than at the time of the interview; in that event the responses can be reported on the "Recording Form." I would like, in any event, to also have an interview since the questions and responses without some clarification may be misinterpreted. Also, for good reason, you may not want to respond to some of the questions. I intend to hold in trust those matters which you report as confidential. I see no need for analysis unit by unit and feel all of the centers and laboratories can profit from a report based upon group analyses.

Sincerely yours,

/s/ L. Joseph Lins
Professor
Principal Investigator

LJL/apk
Encl.

INTERVIEW QUESTIONS

SELECTED EDUCATIONAL R & D CENTERS

Name of R & D Center: _____

Address: _____

Name and Title of Person or Persons Interviewed: _____

_____

I.1 There are many extramurally funded research centers located on a particular campus--centers for education, for the physical sciences, for the biological sciences, for medical sciences, etc. Various universities see advantages in one administrative organization over some other. Some centers are directly responsible to the Chancellor or Provost, others to the Graduate School Dean, others to the Dean of a school or college, and others to an academic department.

A. What is the next higher level of administrative decision making above that of your Center?

B. What do you see as the advantages and limitations of your administrative arrangement? Do you feel that your university administrative ties give you the type of support (administrative and in securing funds) needed?

C. What do you see as the advantages and limitations of the various types of next level administrative arrangements for the Center (Provost, Dean, etc.)?

I.2 Do you feel the amount of or lack of autonomy (freedom from university, Federal, and other grant agency restraints) you have for your Center affects your (1) program determination, (2) development work, (3) dissemination of research and development products? In what ways?

I.3 The various R & D Centers have a variety of responsibilities and are organized internally in a variety of ways.

A. What proportion of your Center's efforts are devoted to (1) research, (2) development, (3) dissemination, and (4) other activities?

B. Do you have administrative and advisory committees which assist you in policy decisions with respect to your Center? If so, what types of committees are these and what groups do they represent?

C. Through what means and what agencies are the products of your

research efforts developed for application in the schools? What do you find to be the strengths and limitations of those arrangements?

D. Through what means are the products of your Center disseminated to and implemented in the schools? What do you find are the strengths and weaknesses of those methods?

II.1 What is the composition of your Center professional (non-clerical, non-secretarial--non-civil service) staff?

	No.	F.T.E. Positions
1. Full-time persons of your Center with academic rank in a University academic department. Is the department your Center?.....	_____	_____
2. Part-time persons of your Center with rank and academic responsibilities in a University academic department.....	_____	_____
3. Full-time and part-time persons with University academic rank but not attached to a University academic department.....	_____	_____
4. Full-time and part-time persons not having academic rank in the University or attached to an academic department of the University (include Graduate assistants, specialists, etc.).....	_____	_____
5. Other professional staff members?.....	_____	_____
	_____	_____

If you employ persons in category 2 of II.1 above, what proportion of their non-Center time on the average is devoted to:

_____% a. teaching courses in which a good deal of the subject matter is based upon the work of the Center?
_____% b. teaching other courses?
_____% c. supervision and advising of degree candidates?
_____% d. research outside of the Center?
_____% e. administrative activities?
_____% f. other activities?

II.2 Professional staff from academic departments, who are associated with a Center on a part-time basis, may be offering courses in those departments. Does your Center, as a Center, offer courses? Do you feel this is, or would be, desirable? Why or why not?

II.3 What do you feel are the strengths and limitations of your academic vs. non-academic staff arrangements? In some Centers, some "principal investigators" and "project coordinators" are part time only in the Center; is this true of your Center? What do you see as the advantages and limitations of full-time vs. part-time employment of

heads of projects by your Center?

II.4 Do you feel that in general extramurally funded university Centers should be instructional (or non-instructional) departments? Why?

II.5 Some Centers have used persons skilled in research and development techniques, but outside of professional education, in developing and carrying through, or assisting with, projects. Do you use persons of this type in your work and if so, what are their special competencies and by what means are they involved? Do those means seem to be satisfactory? If you do not make use of persons from outside of professional education, are there special reasons why they are not or can not be used?

II.6 One way of providing a corps of R & D professionals for the future is through graduate students, progressing toward the masters and doctors degrees, working part time in the R & D Center.

1. Do you employ part-time graduate students? _____Yes; _____No.
2. If yes, what percent of their salary can be attributed to:
   _____% a. productive research?
   _____% b. training for future research manpower needs in your Center or elsewhere?

How does the arrangement seem to be working? Do you use other means of preparing R & D professionals for the future? What successes and limitations do you find in those attempts?

II.7 In a large R & D Center, many projects and components of projects may be in process concurrently. In order that there be the best unified and integrated efforts in your Center, what are your methods of keeping the staff informed? How successful do you feel the methods are?

III.1 What are the sources of funding for operation of your Center? What proportion of your annual operating funds come from:

_____% 1. Federal government?
_____% 2. State appropriations to the University?
_____% 3. State department other than the University?
_____% 4. Foundations (such as Ford or Carnegie)?
_____% 5. Private gifts (individual or corporation)?
_____% 6. Organizations (such as state or national associations?
_____% 7. Other? (Specify) _____

_____

III.2 Rounded to the nearest thousands or dollars, what was the total dollar support for operation of your Center for 1971-72?

III.3 Do extramural overhead funds come directly to (1) your Center, (2) the school or college responsible for your Center, (3) the University, (4) state government? Are all of those funds allocated

to your Center? If not, what proportion of those funds become a part of your operating budget?

III.4 For your Center, what proportion of the costs of the facilities occupied (rent and/or capital) were provided by:

____% 1. Federal government?
____% 2. State appropriation (whether to the University or another state department)?
____% 3. Foundations (such as Ford or Carnegie)?
____% 4. Private gifts (individual or corporation)?
____% 5. Other? (Specify)_____

_____

III.5 For how long a period of time do you have reasonable assurance that your Center will be funded in terms of (1) actual funding and (2) "moral commitment" of funds?

III.6 Do you feel the period for which you have reasonable assurance of funding has seriously affected your ability to:

1. secure highly qualified staff?
2. attack complex problems?
3. adequately have the results of the research efforts published and/or brought to the attention of educational practitioners?
4. secure proper office and research space?
5. work with the schools in discovering their needs?
6. set up adequate administrative and advisory committees?
7. Other? _____

_____

III.7 Have you felt that you have had more problems in your Center than is true of regular university departments (administrative or academic) in:

A. Securing staff:

1. Professorial.
2. Professional.
3. Classified (Secretaries and Technicians).
4. Graduate Students.

B. Retaining staff:

1. Professorial.
2. Professional.
3. Classified.
4. Graduate Students.

If yes, what unusual problems have you encountered (staff morale, working conditions, insecurity, etc.)?

INTERVIEW QUESTIONS

SELECTED EDUCATIONAL LABORATORIES

Name of R & D Laboratory: _____

_____

Address: _____

Name and Title of Person or Persons Interviewed: _____

_____

I.1 There are variations in the internal and external organizational patterns of educational R & D laboratories.

A. What is the next higher level of administrative decision making above that of your laboratory administration?

B. What do you see as the advantages and limitations of your administrative arrangement? If there were closer ties with a university, do you feel this would be helpful or a hinderance in type of support (administrative and in securing funds)?

I.2 Do you feel the amount of autonomy (amount of freedom from university, Federal, and other grant agency restraints) you have for your Laboratory affects your (1) program determination, (2) development work, (3) dissemination of research and development products? In what ways?

I.3 One of the purposes of the amendment to the Cooperative Research Act, Title IV of the Elementary and Secondary Act of 1965, was to provide for better dissemination of information to the educational research community and to the practitioners in the field. What do you see as the strengths and limitations of arrangements between R & D Centers and Laboratories (and in particular your Laboratory and the Wisconsin R & D Center) in bringing research results to the educational community and in bringing the needs of the educational community to the researchers?

II.1 What is the composition of your Laboratory professional staff?

A. Are those with academic rank on leave from a university? What do you see as the advantages and limitations of university academic staff being a part of the staff of R & D centers and laboratories?

B. In some R & D centers and laboratories, some heads of projects are employed full time by the center or laboratory and others are employed part time. What do you see as the advantages and limitations of full-time vs. part-time employment of heads of projects?

II.2 Some centers and laboratories have used persons skilled in research and development techniques, but outside of professional education, in developing and carrying through or assisting with projects. Do you use persons of this type in your work and if so what are their special competencies and by what means are they involved? Do those means seem to be satisfactory? If you do not make use of persons from outside of professional education, are there special reasons why they are not or can not be used?

II.3 One way of providing a corps of R & D professionals for the future is through graduate students, progressing toward the masters and doctors degrees, working part time in the R & D Laboratory.

1. Do you employ part-time graduate students? _____Yes; _____No.
2. If yes, what percent of their salary can be attributed to:
   _____% a. productive work of the Laboratory?
   _____% b. training for future research manpower needs in your Laboratory or elsewhere?

How does the arrangement seem to be working? Do you use other means of preparing R & D professionals for the future? What successes and limitations do you find in those attempts?

II.4 In a large R & D Laboratory, many projects and components of projects may be developed and be in process concurrently. In order that there be the best unified and integrated efforts in your Laboratory, what are your methods of keeping the staff informed? How successful do you feel the methods are?

III.1 For how long a period of time do you have reasonable assurance that your Laboratory will be funded in terms of (1) actual funding and (2) "moral commitment" of funds?

III.2 Do you feel the period for which you have reasonable assurance of funding has seriously affected your ability to:

1. secure highly qualified staff?
2. attack complex problems?
3. adequately have the results of your efforts published and/or brought to the attention of educational practitioners?
4. secure proper office and research space?
5. work with the schools in discovering their needs?
6. set up adequate administrative and advisory committees?
7. Other? _____

_____

_____

III.3 Have you felt that you have had more problems in your Laboratory than is true of university departments (administrative or academic) in:

A. Securing staff:

1. Professorial or professorial level.

2. Other professional.
3. Classified (Secretaries and Technicians).
4. Graduate Students.

B. Retaining staff:

1. Professorial or professorial level.
2. Other professional.
3. Classified.
4. Graduate Students.

If yes, what unusual problems have you encountered (Staff morale, working conditions, insecurity, etc.)?

B

Madison Campus Centers, Laboratories, and Institutes

WISCONSIN RESEARCH AND DEVELOPMENT CENTER FOR COGNITIVE LEARNING

THE UNIVERSITY OF WISCONSIN
1404 REGENT STREET
MADISON, WISCONSIN 53706
PHONE 262-4901 AREA 608

April 11, 1972

Professor _____
Director, _____
University of Wisconsin
Madison, Wisconsin 53706

Dear Professor _____:

In preparation for our Center moving into a new building, Educational Sciences, next fall, the Executive Committee of our Center felt we should have an assessment made of our internal organizational structure and institutional ties and their effects on the Center and the Center's effects on others in the University. We invited Professor L. Joseph Lins to assess our current situation. Professor Lins for many years was Coordinator of institutional research for the University of Wisconsin system. For the past four years, he was Director of Research for the Wisconsin Coordinating Council for Higher Education.

The assessment involves many facets of Center operation. We hope, in our planning for the future, we might have the benefit of experiences of other Centers and Laboratories. Thus Professor Lins is including not only our Center and staff in the survey but also is including a wide range of Centers and Laboratories and persons involved in their operation. The purpose of the project is not to evaluate those Centers and Laboratories but to evaluate us. Thus, no individuals or operations, other than our own, will be identified in any of the analyses.

We hope you will cooperate with Professor Lins in this study since we know your experiences will be helpful. We trust the results of the research will be useful to you also in your planning; therefore, the report will be made available to you.

Sincerely yours,

/s/ William R. Bush
Director of Program
Planning and Management;
Deputy Director

WRB:jls

WISCONSIN RESEARCH AND DEVELOPMENT CENTER FOR COGNITIVE LEARNING

THE UNIVERSITY OF WISCONSIN
1404 REGENT STREET
MADISON, WISCONSIN 53706
PHONE 262 4901 AREA 608

April 11, 1972

Professor _____
Director, _____
University of Wisconsin
Madison, Wisconsin 53706

Dear Professor _____:

As Dr. William R. Bush has indicated in his letter to you, I have been asked to make a case study of the Wisconsin R & D Center for Cognitive Learning. The study was requested by the Executive Committee of the Center and is being done with the approval of the Internal Committee and the External Advisory Council for the project. (Please see page 6 of the enclosed brief summary of the project, "The Wisconsin Research and Development Center for Cognitive Learning: A Case Study of Its Role.")

The document, referred to above, also gives the groups which I expect to survey and the background for the study. The survey of the R & D Center staff is underway. I am now seeking the assistance of administrators of selected centers, laboratories, and institutes on the Madison campus (these units appear under 7 of page 5 of the document); of administrators of selected Federally funded educational R & D Centers and Laboratories in other states; of selected staff of the U. S. Office of Education; of Chairmen of departments from which the R & D Center "principal investigators" come; and of the R & D Center Executive Committee. Structured interviews are planned.

The Madison campus centers, laboratories, and institutes for inclusion were suggested by the Deans and the Chancellor's office represented on the External Advisory Council. That Council also has reviewed the questions for the interviews.

We believe the results of the study will be useful to you and your unit as well as to the R & D Center. Therefore, copies of the final report will be made available. I do not intend to identify any of the units, except the R & D Center, in the analyses unless specific approval is given by you to do so. In the report, however, I will give credit to the cooperating units unless you ask that this not be done.

I hope you will cooperate in the study. I am enclosing three documents: (1) the brief summary of the project, "The Wisconsin Research and Development Center for Cognitive Learning: A Case Study of Its Role," (2) a copy of the questions for the interviews, "Interview Questions, Selected Madison Campus Research Centers, Laboratories, and Institutes," and (3) a recording form, "Recording Form: Interview Questions . . . ."

Professor _____
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Within a week or two, I will call to seek your cooperation and to set up a time for an interview with you. The first two documents of the preceding paragraph give the background for what I am attempting to do in the research. The "Recording Form" has the same questions as the document of (2) but has space for responses.

If you consent to be included in the research, which I hope you will, you may want to, or have some members of your staff, respond to some of the questions at a time other than at the time of the interview; in that event the responses can be reported on the "Recording Form." I would like, in any event, to also have an interview since the questions and responses without some clarification may be misinterpreted. Also, for good reasons, you may not want to respond to some of the questions. I intend to hold in trust those matters which you report as confidential. I see no need for analysis unit by unit and feel all of the centers, laboratories, and institutes can profit from a report based upon group analyses.

Sincerely yours,

/s/ L. Joseph Lins
Professor
Principal Investigator

LJL:jls

Enclosures

INTERVIEW QUESTIONS

SELECTED MADISON CAMPUS RESEARCH CENTERS, LABORATORIES, AND INSTITUTES

Name of Research Center (Laboratory) (Institute): _____

_____

Address: _____

Name and Titles of Person or Persons Interviewed: _____

_____

_____

I.1 There are many extramurally funded research centers located on the Madison campus--centers for education, for the physical sciences, for the biological sciences, for medical sciences, etc. Some are directly responsible to the Dean of the Graduate School, some to the Dean of a school or college, and others to an academic department.

A. What is the next higher level of administrative decision making above that of your Center (Laboratory) (Institute)?

B. What do you see as the advantages and limitations of your administrative arrangement? Do you feel that your university administrative ties give you the type of support (administrative and in securing funds) needed?

C. What do you see as the advantages and limitations of a research unit being responsible to an academic department vs. the Dean of an undergraduate school or college, vs. the Dean of the Graduate School, vs. the Chancellor's office?

I.2 Do you fe[illegible]mount of autonomy (amount of freedom from university, Federal, a[illegible] grant agency restraints) you have for your Center (Laboratory) (Institute) affects your (1) program determination, (2) development work, (3) dissemination of research and development products? In what ways?

I.3 The various University of Wisconsin Centers (Laboratories) (Institutes) have a variety of responsibilities and may be organized internally in a variety of ways.

A. What proportion of your Center (Laboratory) (Institute) efforts are devoted to (1) research, (2) development, (3) dissemination of products, and (4) other activities?

B. Do you have administrative and advisory committees which assist you in policy decisions with respect to the Center (Laboratory)

(Institute)? If so, what types of Committees are these and what groups do they represent? How helpful are they?

II.1 What is the composition of your Center (Laboratory) (Institute) professional (non-civil service) staff?

	No.	F.T.E. Positions
1. Full-time persons of your Center (Laboratory) (Institute) with academic rank in a University academic department.....	_____	_____
2. Part-time persons of your Center (Laboratory) (Institute) with rank and academic responsibilities in a University academic department	_____	_____
3. Full-time and part-time persons with University academic rank but not attached to a University academic department.....	_____	_____
4. Full-time and part-time persons not having academic rank in the University or attached to an academic department of the University (include Graduate assistants, specialists, etc.).....	_____	_____
5. Other professional staff members.....	_____	_____

If you employ persons in category 2 of II.1 above, what proportion of their non-Center time on the average is devoted to:

_____% a. teaching courses in which a good deal of the subject matter is based upon the work of the Center?
_____% b. teaching other courses?
_____% c. supervision and advising of degree candidates?
_____% d. research outside of the Center?
_____% e. administrative activities?
_____% f. other activities?

II.2 Professional staff from academic departments, who are associated with a Center (Laboratory) (Institute) on a part-time basis, may be offering courses in those departments. Does your Center (Laboratory) (Institute) offer courses? Do you feel this is, or would be desirable? Why or why not?

II.3 What do you feel are the strengths and limitations of your academic vs. non-academic staff arrangements? What do you see as the advantages and limitations of full-time vs. part-time employment of heads of projects by your Center (Laboratory) (Institute)?

II.4 Do you feel that in general extramurally funded centers, laboratories, and institutes at the University of Wisconsin should be instructional (or non-instructional) departments? Why?

II.5 Some Centers (Laboratories) (Institutes) have used persons skilled in research and development techniques, but outside of the profes-

sional area of the Center, in developing and carrying through, or assisting with, projects. Do you use persons of this type in your work and if so what are their special competencies and in what ways are they involved? Do those ways seem to be satisfactory? If you do not make use of such persons, are there special reasons why they are not or can not be used?

II.6 One way of providing a corps of research and development professionals for the future is through graduate students, progressing toward the masters and doctors degrees, working part time in the Center (Laboratory) (Institute).

1. Do you employ part-time graduate students? _____Yes; _____No.
2. If yes, what percent of their salary can be attributed to:
   _____% a. productive work of your Center (Laboratory) (Institute)?
   _____% b. training for future research manpower needs in your Center (Laboratory) (Institute) or elsewhere?

How does the arrangement seem to be working? Do you use other means of preparing R & D professionals for the future? What successes and limitations do you find in those attempts?

II.7 In a large Center (Laboratory) (Institute), many projects and components of projects may be in process concurrently. In order that there be the best unified and integrated efforts in your Center (Laboratory) (Institute), what are your methods of keeping the staff informed? How successful do you feel the methods are?

III.1 What are the sources of funding for operation of your Center (Laboratory) (Institute)? What proportion of your annual operating funds come from:

_____% 1. Federal government?
_____% 2. State appropriation to the University?
_____% 3. State department other than the University?
_____% 4. Foundations (such as Ford or Carnegie)?
_____% 5. Private gifts (individual or corporation)?
_____% 6. Organizations (such as state or national associations)?
_____% 7. Other _____

_____

III.2 Rounded to the nearest thousands of dollars, what was the total dollar support for operation of your Center (Laboratory) (Institute) for 1970-71?

III.3 For your Center (Laboratory) (Institute) what proportion of the costs of the facilities occupied (rent and/or capital) were provided by:

_____% 1. Federal government?
_____% 2. State appropriation (whether to the University or another state department)?

_____% 3. Foundations (such as Ford or Carnegie)?
_____% 4. Private gifts (individual or corporation)?
_____% 5. Other? (Specify) _____

_____

III.4 For how long a period of time do you have reasonable assurance that your Center (Laboratory) (Institute) will be funded in terms of (1) actual funding and (2) "moral commitment" of funds?

III.5 Do you feel the period for which you have reasonable assurance of funding has seriously affected your ability to:

1. secure highly qualified staff?
2. attack complex problems?
3. adequately have the results of the research efforts published and/or brought to the attention of practitioners?
4. secure proper office and research space?
5. work with the users of your research and development in discovering their needs?
6. set up adequate administrative and advisory committees?
7. Other? _____

_____

III.6 Have you felt that you have had more problems in your Center (Laboratory) (Institute) than is true of regular university departments (administrative or academic) in:

A. Securing staff:

1. Professorial.
2. Professional.
3. Classified (Secretaries and Technicians).
4. Graduate Students.

B. Retaining staff:

1. Professorial.
2. Professional.
3. Classified.
4. Graduate Students.

If yes, what unusual problems have you encountered (Staff morale, working conditions, insecurity, etc.)?

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